

Buffel Grass Technical Working Group Meeting 1 – Minutes

Date: Thursday 1 June 2023 **Time:** 9:01am – 1:25pm
Location: Conference Room, Tom Hare Building, Alice Springs, and MS Teams

Attendance

Members

Nick Ashburner – Manager, Land Management, Central Land Council (CLC).

Tracey Guest – Natural and Cultural Resource Manager, Uluru-Kata Tjuta National Park, Parks Australia.

Chris Materne – Pastoral Production Officer, Agriculture, Fisheries and Biosecurity Division, Department of Industry, Tourism and Trade (DITT).

David Albrecht – A/Chief Botanist, NT Herbarium Alice Springs, Flora and Fauna Division, Department of Environment, Parks and Water Security (DEPWS).

Phil Cowan – Director, Central Australian Parks, Parks and Wildlife Division, DEPWS.

Nicole Hayes – Station Manager, Undoolya Station.

A/Prof Christine Schlesinger – Associate Professor, Environmental Science, Charles Darwin University (CDU), Alice Springs Campus.

Convenor

John Gaynor – Regional Director Southern, DEPWS.

Executive Officer

Michelle Franklin – Senior Project Officer, Weed Management Branch, DEPWS.

Guests

Nigel Weston – Director, Weed Management Branch, DEPWS.

Chris Brown – Regional Manager – Alice Springs, Weed Management Branch, DEPWS.

Nathaniel Staniford – Assistant Director Regions, Bushfires NT, DEPWS.

Dr Kate Stevens – Senior Rangelands Monitoring Officer, Rangeland Monitoring, DEPWS.

A/Prof Marg Friedel – Adjunct Professor, Research Institute for the Environment & Livelihoods, CDU, Alice Springs Campus.

Minutes

Conni Warren – On the Same Page Consulting.

Note that these are abridged minutes taken from the verbatim transcript.

Meeting open

- The convenor welcomed everyone and acknowledged that the meeting was held on Arrernte country.
- Buffel Grass Technical Working Group (TWG) is comprised of experts in the field of buffel grass, the Terms of Reference (ToR) have been developed to provide the Minister for Environment, Climate Change and Water Security (the Minister) with technical knowledge and advice to contribute to the discussion about how to manage buffel grass going forward including whether it should be declared a weed under the *Weeds Management Act 2001*.
- The brief history of buffel grass as outlined in the Agenda Paper was noted.
- All present gave personal introductions and a brief history of their relevant experience.
- Discussion regarding Marg Friedel's previous research, in particular her 2009 Land & Water Australia report 'Quantifying costs and benefits of buffel grass'. Marg Friedel noted that the paper is now fairly old.

ACTION: Distribute selection of Marg Friedel's research papers to the group.

Discussion

What has changed since Marg Friedel's 2009 report 'Quantifying costs and benefits of buffel grass'?

- In 2015 the NT Government previously looked at whether buffel should be declared. Advice to the pastoral industry was that it is impractical to declare under the *Weeds Management Act 2001*.
- South Australia opportunistically declared buffel grass in 2015.
- Further discussion was held on types of vegetation, fire regimes, cultural aspects and current mitigation measures.
- Community concern has risen on the back of a couple of good seasons in Central Australia.

Scope and Purpose of this Buffel Grass Technical Working Group

- The Minister has requested recommendations before the end of November.
- The group reviewed the ToR and the desired outcomes.
- Discussions around the different types of sectors the TWG may be interested in hearing from.

Current Policy and Practice

Weed Management Branch

- Overview of the current weed management framework in the NT including the amended *Weeds Management Act 2001* and statutory plans, NT Weeds Strategy 2021-2026 (comprising regional strategies for Darwin, Katherine, Tennant Creek and Alice Springs) and Buffel Grass Management Guide for Central Australia.
- Discussions around an article by Des Nelson highlighting the value of buffel grass for dust suppression and its significance in Central Australia.

ACTION: Distribute Des Nelson's article.

- Looked at the different mechanisms available to use to manage buffel grass under various pieces of legislation.
- If a declaration is to be made there are several questions to consider: What actions does the TWG want to take? What tools are available? What recommendations should they make to the Minister regarding next steps?
- It was noted that the Australian Government Threatened Species Commission has publicly supported listed buffel grass.
- Policy levers available to the Australian Government were discussed, including the *Environment Protection and Biodiversity Conservation Act 1999* and Nature Repair Market Bill (biodiversity credits) as well as the new Threatened Species Action Plan and national weeds work.

ACTION: Invite the Australian Government Threatened Species Commissioner to attend the next meeting.

Weed Management Branch – Alice Springs

- Overview on the 2021-2026 Regional Weeds Strategies and the NT Weed Risk Assessments.
- Provided an overview on the current buffel trials involving herbicides.
- Identified a need to collaborate with South Australia on trials and results. It was agreed that it would be useful for the group to hear from SA at the next meeting.

ACTION: Invite a representative from the SA Government to attend the next meeting.

- Discussions on the impact of residual chemicals on native species and the effectiveness of herbicides in sandy soils.
- Discussions around asset protection across the Alice Springs region.
- Current mapping data for buffel grass is opportunistic. There should be opportunities to use satellite data and other methods to improve mapping efforts.

Bushfires NT

- Managed as fuel load under the Bushfires Management Act 2016.
- Fire regime of buffel grass and current management practices.
- Discussions on the potential for increased buffel grass dominance and a desire to minimise negative impacts during fire management.

Rangelands Monitoring Branch

- Overview on the objectives of the Rangelands Monitoring Branch across the pastoral estates.
- Land condition monitoring required under the Pastoral Land Act 1992.
- Buffel grass is classified as a three P: perennial, palatable and productive. If it is present and green, it indicates valuable pasture grass.
- The highest negative implications of the introduction of buffel grass for pasture is changing fire regimes to hotter and more frequent fires.

Discussion

Phil Cowan spoke of the extensive work Parks was doing to protect natural, cultural and visitor values from the threat of buffel grass. He expressed interest in exploring selective grazing in specific areas to reduce the biomass of buffel grass, and sought others' opinions, particularly regarding cattle preferences.

Marg Friedel noted that it may be difficult to source livestock in the window of time after rain and before seed set. In addition, a source of water would be required, and appropriate (moveable) fencing to protect high value areas or to focus grazing. Manpower with livestock skills would be needed at times. Consequently, logistics could be unrealistically costly in time and dollar terms.

Chris Materne added that:

- Cattle grazing behaviour cannot be generalised.
- Green buffel grass is selectively grazed after rain.
- Cattle tend to go for sweet grass between the tussocks.
- Preferences change according to the growth stage of the grasses and soil fertility.
- Cattle have a good ability to select their diet and will graze specific tussocks.

Marg Friedel agreed that buffel grass palatability varies depending on growth stage, location and cultivars, emphasising the importance of understanding the varieties and their hybridisation, and noted that commercially available varieties are not pure and the genetic analysis is not clear or comprehensive. There has been previous debate among pastoralists regarding sending cattle to graze when they already have buffel grass on their land.

The group discussed the concept of monocultures and clarified that what appears visually as a monoculture often contains various native species alongside buffel grass.

Chris Materne estimated that 95% of perennial grass tussocks died during a recent dry period. The subsequent rain period saw a mass germination event of buffel grass, which rebounded to its previous levels within three years.

Tracey Guest has observed naturalisation on sand hills and around desert oaks, noting that extra rain on roadsides has contributed to the spreading of buffel grass. Stressed the negative impact on cultural values and connection to country. This perspective supported by Nick Ashburner (CLC).

Nick Ashburner raised concerns about conflicts and disenfranchisement faced by Indigenous communities in land management. Lack of expertise and chronic underfunding in the CLC ranger program. Discussed intermittent management of fire and the need for strategic planning, with particular attention to satellite imagery and its limitations in identifying the impact of burning on buffel grass.

Christine Schlesinger explained that the lived experiences of Aboriginal people involve burning grasses, but believes the key issue lies in not knowing how to manage fire in areas invaded by buffel grass. Previous knowledge and techniques are no longer effective in the presence of buffel grass. The biggest gap lies in fire knowledge, as fire has the greatest impact on biodiversity and is an immediate concern in human-inhabited areas.

Nicole Hayes suggested that anecdotally that there has been an increase in deliberately lit fires in the past two decades, which could be linked to fuel loads. Unsure if there is a significant increase in practices like mosaic burning or if it is simply being discussed more. It appears that road corridors are common starting points for fires.

- The group discussed the influence of cattle density and grazing patterns on buffel grass control.
- The potential conflict between the *Pastoral Land Act 1992* focus on good pasture management and buffel grass control was explored.
- Concerns were raised about the significant fires on pastoral properties and the need for effective grazing management to mitigate their impact.
- The group discussed the importance of follow-up actions and strategic approaches to achieve biodiversity outcomes.
- Articles on containment and eradication difficulties were mentioned.

Agreeing on the problem

Impacts of Buffel Grass

Discussions were held over the negative and positive impacts of buffel grass from a fire, culture and pastoral perspective.

Known unknowns

- The naturalization cycle of buffel grass and the emergence of unique Australian hybridized varieties were discussed.
- Knowledge gaps and the need for more granular mapping through monitoring and remote sensing capabilities.
- The group discussed grazing as a potential approach to manage buffel grass, emphasizing the need for best practices and further research on its impact.
- The focus was placed on controlling its impact, promoting biodiversity between tussocks, and reducing the bulk of buffel grass in terms of fire risk.
- Questions were raised about the biodiversity on "both sides of fences", particularly in areas such as Finke Gorge National Park and Henbury Station.
- How does well grazed buffel compare to parks across the fence for biodiversity?
- Can grazing be used to control impact (fire)?

What needs to be done

- The need for mapping and understanding the density of buffel grass was emphasised. It was suggested that specialists or students could produce maps to identify the distribution of buffel grass and its relationship to other species.
- More understanding is needed of the impact of soil type on buffel grass distribution. Trials involving the use of sugar to change the chemical composition of the soil were mentioned, but their scalability was questioned.
- The positive feedback loop between buffel and fire was discussed and the need to consider the possibility of opportunistic herbicide treatment following fire to reduce the incidence of fire as a management technique. More research is required on the off target impact on native species and the most appropriate timing of opportunistic herbicide treatment if this is considered an option.

- The possibility of using drones and remote sensing to target specific weeds through spraying was discussed. The automation of this process was seen as an ideal solution. Phil shared his experience with brush cutting and spraying to protect Quandongs at Watarrka but noted that such methods are labour-intensive and resource-intensive for small-scale projects.
- More understanding of the cost implications of managing buffel grass, particularly in protecting sacred sites and special plants.
- Accepting that the spread and distribution of buffel grass may not be something that can be eradicated now, does not imply the need to continue planting it.

Logistics

Communications

- The communication plan, including the use of a webpage and Facebook posts to inform the public about their discussions and goals was agreed.
- The regular interviews on NT Country Hour radio.
- Communique of meeting outcomes and intended topics of discussion will be shared.

Schedule

- Meeting 2 – 19 July 2023
- Meeting 3 – 31 August 2023
- Meeting 4 – 5 October 2023
- Meeting 5 – 16 November 2023

Meeting closed

The meeting concluded at 1:25pm

Actions list	
Distribute selection of Marg Friedel's research papers to the group.	ASAP
Distribute Des Nelson's article.	ASAP
Invite the Threatened Species Commissioner from the federal Department of Climate Change, Energy, the Environment and Water, to attend the next meeting.	Next meeting
Invite a representative from the SA Government to attend the next meeting	Next meeting