

# Buffel Grass Technical Working Group

Report and Recommendations – November 2023

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<b>Acronyms</b>	<b>Full form</b>
ALRA	<i>Aboriginal Land Rights Act (Northern Territory) 1976</i>
BFMA	<i>Bushfires Management Act 2016</i>
CDU	Charles Darwin University
CLC	Central Land Council
DEPWS	Department of Environment, Parks and Water Security
DIPL	Department of Infrastructure, Planning and Logistics
DITT	Department of Industry, Tourism and Trade
EPA	<i>Environment Protection Act 2019</i>
FEA	<i>Fire and Emergency Act 1996</i>
MMA	<i>Mining Management Act 2001</i>
NT	Northern Territory
NT ASSA	<i>Northern Territory Aboriginal Sacred Sites Act 1989</i>
NTCA	Northern Territory Cattlemen’s Association
NTG	Northern Territory Government
PA	Parks Australia
PIRSA	Department of Primary Industries and Regions, South Australia
PLA	<i>Pastoral Land Act 1992</i>
ToR	Terms of Reference
TPWCA	<i>Territory Parks and Wildlife Conservation Act 1976</i>
TWG	Buffel Grass Technical Working Group
WAC	Weed Advisory Committee
WMA	<i>Weeds Management Act 2001</i>

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## Executive Summary

The NT Buffel Grass Technical Working Group (TWG) was established following the Honourable Lauren Moss's (then Minister for Environment, Climate Change and Water Security) announcement on 29 March 2023, to assess the impacts of, and approaches to buffel grass management in Central Australia.

The TWG was comprised of people who have expertise or experience relevant to the management of buffel grass, and was convened by the Department of Environment, Parks and Water Security.

The Group met five times over a six month period, considered a range of technical reports, presentations from experts, and legislative options as well as exchanging professional experiences and opinions. As well as exchanging professional experiences and opinions, and having considered the benefits, risks and impacts of buffel grass, how it spreads, the management options, the feasibility of management actions and the natural, cultural and economic values of importance to the Northern Territory, the group agreed on a range of objectives that would inform final recommendations. The advice and recommendations to the Minister for Environment, Climate Change and Water Security, premised on achieving these objectives, are as follows:

- a. Keep buffel grass out of clean areas;
- b. Protect sites of high ecological value;
- c. Protect cultural values;
- d. Protect population centres and built assets from fire;
- e. Reduce spread via transport corridors and mining operations;
- f. Prevent intentional sowing of buffel grass and introduction of new varieties;
- g. Take a more strategic approach to management to minimise biodiversity loss; and
- h. Protect the value of the pastoral estate.

The TWG has produced a range of recommendations regarding declaration, governance, funding, policies, mapping, research and education that seek to achieve the stated objectives.

Due to the extensive distribution of buffel grass, the TWG did not consider eradication on a broad scale as being likely nor feasible applying current best practice techniques. In specific localised areas, where buffel grass has not yet taken hold, keeping the weed out or eradicating it may be considered a feasible management option. Where eradication or containment of spread is not feasible, resources must be focused on asset protection due to the fire threat, and protecting high value cultural, environmental or economic assets.

A majority of members have agreed on the recommendations being put forward although an absolute consensus was not able to be reached on the subject of weed declaration. There were two dissenting views amongst the eight-member group.

Broadly the dissenting views related to knowledge of distribution, feasibility of control, cost of and responsibility for control, consistency of regulatory actions across different land tenure, questions of cost benefit to the Territory, impact on pastoral values, unintended impacts of control mechanisms, and availability of alternative pasture options. For further information on dissenting views please refer to Attachment 1.

# 1. Recommendations

The Buffel Grass Technical Working Group (TWG) reviewed all the relevant information put to them over the past five meetings, overlaid their own knowledge and experience and had the opportunity to engage in robust discussion about the impact of buffel grass and current and future management options.

It should be noted that two members have dissenting views which can be read in Attachment 1.

The TWG makes the following recommendations:

## 1.1. Weed declaration

It is recommended that:

- a. Buffel grass (*Cenchrus ciliaris* and *C. pennisetiformis*) is declared a weed in accordance with section 7 of the *Weeds Management Act 2001*.
- b. It is recommended buffel grass is declared a Class B weed (growth and spread to be prevented) on all land in the southern arid and semi-arid zones within the Northern Territory.
- c. A zoned approach, with targeted management goals is taken, that enables exclusion areas (i.e. Northern NT), and split and restricted declarations. Specifically, due to a lack of evidence of negative impacts or risk of spread in high rainfall areas of the northern NT, the declaration should exclude these areas.
- d. A Weed Advisory Committee (WAC) be established to detail the management options available and, to determine which options should be applied across different land tenures or locations.
- e. Monitoring and evaluation of the growth and spread of buffel grass, including outside of the declared zone to the north, is undertaken to inform the WAC of the success of ongoing management, and any need for an expansion of the declaration zone.

## 1.2. Establishment of a Weed Advisory Committee

It is recommended that:

- a. Following the weed declaration, a WAC is established by the Minister for Environment, Climate Change and Water Security (the Minister) to draft a statutory weed management plan in accordance with the *Weeds Management Act 2001*.
- b. The WAC is tasked with developing a draft statutory weed management plan for buffel grass, and advising the Minister on progress and other matters relating to buffel grass.
- c. The WAC is tasked with determining what reasonable measures are, to prevent growth and spread.

## 1.3. Funding

It is recommended that:

- a. Funding is made available to establish and maintain a WAC for buffel grass as outlined above.
- b. Funding is made available to establish practical on-ground actions and research that complements the declaration, improves knowledge, and informs future management options.
- c. Continuity of funding is provided recognising that sustained on-ground actions are required to mitigate risk in high fire danger seasons and maximise the impact of remediation work in lower risk fire seasons.

- d. In recognition of the seasonal variability of growth and spread of buffel grass, Government considers the establishment of a trust fund that provides for multiyear accumulation of funds to enable pro-active or 'just-in-time' funding for buffel grass management in response to large fire events or years of increased rainfall.
- e. The NT Government collaborates with the Commonwealth Government to ensure that Commonwealth funding is made available to augment and compliment the work being done in the NT on buffel grass management mechanisms.

## 1.4. Understanding the extent

It is recommended that:

- a. Research is conducted into the feasibility of developing broad scale, higher resolution mapping to provide improved understanding of distribution, rate of spread, and where possible density of buffel grass across the landscape.
- b. Subject to the broad scale, higher resolution mapping methodology being proved, develop a Territory wide probability map.
- c. In conjunction with the Commonwealth and other jurisdictions, investigate the potential for use of remote sensing combined with drone technology and machine learning to improve granular mapping of discrete areas.

## 1.5. Knowledge on management practices

It is recommended that further research is undertaken to inform buffel grass management including:

- a. Investigation of the benefits and risks of post rain, post fire, or post slashing herbicide treatment and where appropriate, implementation of strategic, opportunistic spraying programs.
- b. Exploration of additional chemical control options, with collaboration between South Australia, Northern Territory, and various chemical producers.
- c. Partnering with Industry to research alternative or new herbicide applications.
- d. Partnering with Industry to explore the feasibility of using new technology to improve herbicide delivery methodology including drone, remote sensing and machine learning techniques.
- e. Investigation of the impact of buffel grass on young / small trees and shrubs and any subsequent arid lands carbon sequestration methodology.
- f. Partnering with the Commonwealth and other jurisdictions to investigate the feasibility and risks of introducing strategic biological control measures.
- g. Investigation of alternative approaches to fire management that are more effective and carry less risk in heavily buffel grass infested areas.
- h. Investigate appropriateness or otherwise of controlled grazing to reduce biomass, and slow spread, as a potential impact mitigation measure.
- i. Partner with industry to investigate sourcing local provenance, native species as alternative perennial grasses for pasture improvement and soil stabilisation.

## 1.6. Education Programs

It is recommended that:

- a. There is investment providing education about ‘delineating the old ways of burning in a changing landscape’ to explore the difference between fires fuelled by native grasses compared to those fuelled by buffel grass to improve understanding of fire behaviour and the use of fire in sensitive, buffel grass invaded areas.

## 1.7. Policies

It is recommended that:

- a. To inform ongoing policy settings, analysis is conducted of current costs associated with on-ground buffel grass management in areas where it is already managed, and current and future positive and negative economic impacts of controlling growth and spread across all sectors and industries.
- b. Regulation and enforcement actions under the *Pastoral Land Act 1992* are reviewed.
- c. The land condition assessment policies are reviewed and revised.
- d. A policy that guides weed declaration is developed that is consistent with and is informed by the NT Weeds Risk Assessment System.
- e. Incentive options are investigated to rehabilitate areas affected by buffel grass spread.

## 2. Background

Buffel grass (*Cenchrus ciliaris* and *C. pennisetiformis*) was introduced to Central Australia for improved pasture production, soil stabilisation and dust suppression. This palatable grass species, has spread well beyond areas where it was planted and into places once thought unsuited to its survival, and appears to have hybridised.

Buffel grass is not a declared weed in the Northern Territory (NT), however, the Alice Springs Regional Weeds Strategy 2021-2026 recognises that it does have both negative and positive attributes for different land managers. Whether or not it is considered a ‘weed’ can depend on the land management context – where it is growing, the type of land tenure, who is managing the land and for what purpose.

Buffel grass is contentious because it is valued by many pastoralists but is also highly invasive and rates as a very high weed risk in Central Australia. It impacts directly and negatively on biodiversity values through competition with other plants and, in places where it becomes dominant, transforms habitat and substantively alters food resources available for native animals. The effect of this habitat alteration causes a loss of cultural knowledge and contributes to Aboriginal people’s lack of connection to country. Buffel grass increases frequency, intensity and continuity of fires and the severity of impact of fires on native plants. This is causing the progressive loss of old growth trees, the transformation of entire plant communities, and consequent threats to biodiversity. These altered fire regimes also impact on infrastructure and economic costs, while social and cultural amenity are affected by, for example, compromised health or loss of significant sites.

Buffel grass is recognised by the Commonwealth’s Threatened Species Commission as a novel biota and a key threatening process that presents as a major threat to biodiversity in Central Australia.

Due to its extensive distribution in Central Australia and value to pastoralists, landscape scale management of buffel grass will be challenging and eradication in heavily invaded areas is not feasible. Resources need to be targeted to areas of greatest need and where potential for successful management is highest.

## 3. Methodology

### 3.1. Establishment of the Buffel Grass Technical Working Group

The NT Buffel Grass Technical Working Group (TWG) was established following the Honourable Lauren Moss's (then Minister for Environment, Climate Change and Water Security) announcement on 29 March 2023, to assess the impacts of, and approaches to buffel grass management in Central Australia.

The Terms of Reference (ToR), were to:

- Analyse the 'issue' of buffel grass and how it is being managed in the Northern Territory;
- Consider and evaluate existing and alternative management approaches; and
- Make recommendations to the Minister about the best management approach or approaches.

### 3.2. Membership

The ToR list eight positions to be represented by persons who have:

- Expertise or experience relevant to the management of buffel grass;
- A genuine desire and ability to collaborate with others who may have competing interests or opposing viewpoints on buffel grass; and
- Strong existing networks which will enable further consultation and investigation if required.

Nominations for membership were taken from the following groups, and the selected representatives are listed as follows:

Role	Representing	Name / Position
Aboriginal Land Manager	Central Land Council (CLC).	Nick Ashburner, Manager, Land Management, CLC.
Rangeland Scientist (Agronomist)	NT Department of Industry, Tourism and Trade (DITT).	Chris Materne, Pastoral Production Officer, DITT.
Australian Government Protected Area Manager	Parks Australia (PA).	Tracey Guest, Natural and Cultural Resource Manager, Uluru-Kata Tjuta National Park, PA.
Botanist	NT Department of Environment, Parks and Water Security (DEPWS).	David Albrecht, Senior Botanist, NT Herbarium Alice Springs, Flora and Fauna Division, DEPWS.
NT Government Protected Areas Manager	DEPWS.	Phil Cowan, Director, Central Australian Parks, Parks and Wildlife Division, DEPWS.
Pastoral Land Manager	Pastoral Sector, nominated by the Northern Territory Cattlemen's Association (NTCA).	Nicole Hayes, Station Manager, Undoolya Station.
Arid Zone Ecologist (Weed Researcher)	Charles Darwin University (CDU).	Dr Christine Schlesinger, Associate Professor, Environmental Science, CDU, Alice Springs Campus.
NT Government Public Land Manager	Department of Infrastructure, Planning and Logistics (DIPL).	Sarah Fairhead, Executive Director Southern Region, DIPL.

The TWG was convened by the DEPWS Director Southern Region, John Gaynor with Executive Officer support from a DEPWS Weed Scientist Michelle Franklin.



### 3.3. Meetings

A total of five TWG meetings were held in Alice Springs at six weekly intervals from 1 June 2023 until 16 November 2023. Members heard from a range of experts and senior Northern Territory Government (NTG) staff on buffel grass, various legislative levers and management measures currently in place.

Minutes of meetings can be found at Attachment 2.

## 4. Agreed Objectives

The TWG agreed on the range of objectives they wished to achieve through the recommendations.

Those objectives were to:

- a. Keep buffel grass out of clean areas;
- b. Protect sites of high ecological value;
- c. Protect cultural values;
- d. Protect population centres and built assets from fire;
- e. Reduce spread via transport corridors and mining operations;
- f. Prevent intentional sowing of buffel grass and introduction of new varieties;
- g. Take a more strategic regulatory approach to management to minimise biodiversity loss; and
- h. Protect the value of the pastoral estate.

## 5. Discussion

### 5.1. Benefits of Buffel Grass

- Pastoral Production – Buffel grass has high drought and fire tolerance allowing it to thrive in arid and semi-arid regions, providing reliable forage for livestock even during periods of limited rainfall. Buffel grass also has good palatability and nutritional value, contributing to sustaining animal health and productivity.
- Economy – Buffel grass supports livestock production, resulting in the maintenance of income and allowing flexibility in times of market volatility for pastoralists.
- Soil Erosion Control – Buffel grass has an extensive root system and robust tussocks that helps stabilise soils, preventing wind and water erosion and protecting against land degradation. This benefit is especially valuable on the pastoral estate, and in other regions prone to soil erosion, as it helps maintain soil stability, fertility and productivity.

### 5.2. Impacts of Buffel Grass

- Loss of Biodiversity – In Central Australia, buffel grass has become invasive, outcompeting native plant species and disrupting natural ecosystems. This has led to a loss of biodiversity, as native flora are overtaken by the fast-spreading buffel grass. The reduced diversity impacts wildlife habitat, pollinator populations, and overall ecosystem balance.
- Changing Fire Regimes – Buffel grass is highly flammable, and its dense growth increases the intensity and spread of wildfires. Buffel grass increases overall fuel load and promotes more frequent fire because it grows back quicker than native grasses. This poses an increased risk to both life and property in remote communities, rural and peri-urban areas and to native vegetation and wildlife. In heavily invaded areas, fire is causing the progressive loss of native trees and shrubs, including species

that were previously considered resilient to fire. This can result in significant changes to ecosystem structure and function.

- Reduction of habitat quality – The dense stands of buffel grass can significantly alter habitat quality for native fauna due to the loss of native plant diversity, and long-lived shrubs and trees caused by interactions between buffel grass and fire. It can reduce food availability, alter microclimates, and limit the availability of shelter and nesting sites for native animals. This can ultimately lead to population declines and changes in species composition.
- Loss of ecosystem services – Buffel grass invasion can disrupt ecosystem services, such as water filtration, nutrient cycling, and soil stabilisation. It is hypothesised that the altered vegetation composition and dense root systems of buffel grass can lead to changes in hydrological processes and nutrient dynamics, impacting the overall functioning of ecosystems.
- Threat to rare, threatened and endemic species – Buffel grass invasion poses a particular threat to rare, threatened and endemic plant species that are adapted to specific habitat conditions. Competition and/or altered fire regimes associated with buffel grass invasion can result in their decline or even extinction.
- Negative impacts on cultural values – Buffel grass invasion and the impacts on natural values can also have negative impacts on cultural values and traditional land management practices. It can disrupt cultural landscapes and alter sites of significance, impacting Indigenous communities and their connection to the land.
- Health Risks – The inhalation of pollen, smoke, or ash from buffel grass fuelled wildfires may cause respiratory issues and allergies. This can lead to health risks for people living in areas with high buffel grass densities, particularly during the pollen season or during high fire danger periods.

### 5.3. Challenges of Managing Buffel Grass

- Spread and establishment in new areas – Buffel grass is highly invasive due to its tenacity, ability to establish under a wide variety of conditions and high propagule pressure (production of prolific seed) even after limited rain. It can rapidly spread into new areas where favourable conditions exist, especially during prolonged wet (La Niña) periods. The biological properties of buffel grass make it difficult to control and manage effectively in areas where it is already dominant, but management of spread into new areas is more feasible.
- Invasive Management – Controlling the spread of buffel grass in areas where it has become invasive is a significant challenge. Effective control measures, such as herbicide application or mechanical removal, may be required to prevent further spread and to restore native vegetation. However, this can be costly and time-consuming, requiring ongoing monitoring and management efforts. New alternative methods may need to be developed and considered to assist in management at a landscape scale, including alternatives to herbicide use where this is not desirable or feasible.
- Biodiversity Conservation – Managing buffel grass for the purpose of conserving biodiversity requires careful planning and implementation of restoration strategies. This includes identifying areas of high ecological importance and areas where buffel grass is absent or in very low densities, and prioritising the treatment or removal with ongoing follow-up control of buffel grass from those areas. In areas where buffel grass has been successfully removed, native vegetation tends to recover without requiring further intervention. Restoring native vegetation and monitoring ecosystem recovery are essential components of conserving biodiversity.
- Fire Management – The positive feedback loop between buffel grass and fire means that risk mitigation using fire can have unintended consequences, promoting further growth and spread of buffel grass, increasing fuel loads in the long term and creating increased risk. Impacts to native vegetation and fauna from management burns have increased in areas where buffel grass dominates, and the risk of unintended spread of fires over wider areas is increased.

- Fire Management – Buffel grass management should include strategies to mitigate the increased fire risk associated with its dense growth. This may involve establishing firebreaks, implementing controlled burn practices (followed by herbicide treatment), and educating communities about fire prevention and management.
- Grazing Management – Balancing grazing pressure and maintaining sustainable grazing practices in mixed pastures of introduced and native grasses is essential. Overgrazing can lead to the degradation of native species and reduced pasture productivity.
- Seed bank persistence – Buffel grass produces large numbers of seeds that can remain viable in the soil for approximately five years. This seed bank makes it challenging to eradicate buffel grass completely as new plants can germinate from the existing seed reservoir.
- Long-distance seed dispersal – Buffel grass seeds can be dispersed over long distances by wind, water, animals, and vehicles although this is concentrated along transport corridors, waterways, or areas with high traffic (especially humans and domestic or feral herbivores). This makes it difficult to contain the spread of buffel grass where roads, walking tracks and other transport mechanisms that facilitate spread exist, especially in areas with fragmented landscapes or in proximity to infested areas.
- Lack of natural control mechanisms – Buffel grass currently does not have natural herbivores or diseases that can effectively control its population in the NT. Without natural control mechanisms, human intervention is necessary to manage and contain its spread.

## 5.4. Weed declaration

The majority view of the TWG was that while there are existing legislative tools available to manage some of the impact of buffel grass, including the *Bushfires Management Act 2016*, the *Fire and Emergency Act 1996*, the *Territory Parks and Wildlife Conservation Act 1976*, the *Pastoral Land Act 1992*, the *Northern Territory Aboriginal Sacred Sites Act 1989*, the *Aboriginal Land Rights Act (Northern Territory) 1976*, the *Mining Management Act 2001* and the *Environmental Protection Act 2019*, the capacity to meet the objectives agreed by the group is founded on using the provisions of the *Weeds Management Act 2001* in unison with these other Acts, where appropriate.

There are four declaration classifications in the Territory under the *Weeds Management Act 2001*. A plant may be declared a Class A weed where it is to be eradicated, a Class B weed, where growth and spread is to be prevented, a Class C weed, where it is not to be introduced into the Territory (or a part of the Territory), or a Class D weed, to prevent the plant being spread by the actions of persons.

Declaring buffel grass as a weed under the *Weeds Management Act 2001* provides a legal framework for its control and management. Classifications may apply to all or only parts of the Territory and a weed may have more than one classification depending on the nature of the land use of the area in focus and the outcome being sought.

All weed declarations regardless of class, result in the weed being subject to the general duties stipulated in the *Weeds Management Act 2001* that includes compliance with any statutory weed management plan relevant to the weed. A declared weed, unless otherwise stipulated in a statutory weed management plan, cannot be sold or purchased, and must not be propagated, nor brought into, stored or transported in the Territory.

Weed declaration places the onus on land holders to manage their weeds according to the level of declaration applicable to their land. Declaration may be most beneficial when combined with complementary measures and where appropriate, the combination of other regulatory powers.

The TWG is recommending that buffel grass be declared a Class B weed (prevent growth and spread) in the Tennant Creek and Alice Springs Weed Management Regions, and that a zoned approach is taken with respect to other classifications, the recommendations of which should be determined by the WAC.

In the Northern Territory context, because buffel grass already exists, Class C was not considered relevant, although a WAC may consider using a Class C declaration in parts of the NT to prevent the introduction of new buffel grass cultivars, under the zoned approach. The applicability of a Class D declaration for pastoral lease tenure was considered and eventually discounted on the basis that the feasibility of success for land holders with a responsibility to control growth and spread of buffel grass would be compromised if neighbouring tenures were not required to make an equivalent effort. Considering the impacts of buffel grass on biodiversity and in promoting fire, taking reasonable measures where feasible to reduce spread into areas where buffel grass is not yet established across all tenures was considered important, especially where such spread will threaten areas with high conservation or cultural value. It was also noted that the Class D classification was intended for weeds considered to be of a lower threat status.

With the extent of existing buffel grass spread across the semi-arid and arid landscape, the TWG considered the potential for success from a zoned Class A declaration for generalised eradication of buffel grass to be unlikely. Under a zoned approach it may be possible to declare Class A in specific areas for eradication where this is considered feasible and desirable (for example on some Aboriginal lands where buffel grass has not yet invaded and Traditional Owners wish to eradicate).

Further cross jurisdictional cooperation and investigation into biocontrol measures are likely to offer the best hope for reducing the dominance of buffel grass in already invaded areas, noting that biological control is not a methodology that would lead to eradication. Knowledge of biological control of buffel grass is currently limited, and the risks of unintended negative impacts on native plants or ecosystems should be considered.

The TWG is recommending a zoned approach to declaration. This will enable split declarations where eradication within an area is possible while preventing growth and spread, or where there is a desire to prevent the introduction of new cultivars, or where declaration exclusions may apply, such as the high rainfall regions in the northern NT.

The northern NT exclusion is recommended because there is no current evidence that buffel grass presents a significant risk in those areas as it tends not to spread widely, or successfully establish, in higher rainfall areas. Buffel grass is used as an improved pasture species in some areas in the north, but requires regular reseeding to persist. It was noted that the invasive potential of buffel grass in the north could change if there are significant shifts in climate and that monitoring of buffel grass in this region should be undertaken and considered periodically by a WAC. A zoned approach will enable much closer scrutiny of specific areas within zones.

## 5.5. Establishment of a Weed Advisory Committee

A WAC may be established by the Minister following the declaration of a weed, to develop a draft weed management plan and report back to the Minister on the progress of its implementation. A Statutory Weed Management Plan for Buffel Grass would define:

- The area applicable and the classification of the declared weed,
- The general and specific objectives, and methods to achieve them, and to prevent the spread within or from the area to which the plan relates, and
- The requirements for monitoring the results of the plan.

A statutory plan may also stipulate additional requirements such as inspection procedures, land rehabilitation processes, the use of declared weeds under permit, education programs, and management assistance available.

The WAC, through the drafting of a statutory weed management plan, will also consider and define the management requirements for buffel grass. These requirements may differ on different land types depending on the threat buffel grass causes in those areas, and the feasibility, availability and suitability of applying different management approaches in those areas. For example the weed management plan will help to ensure that existing priority land uses (such as tourism, conservation, and pastoralism) are not

compromised by a requirement to apply a particular management strategy (e.g. use of herbicide). Recognising that declaration will have resourcing implications on all land tenures, management actions required under declaration will depend on current extent of buffel grass occurrence and land tenure.

## 5.6. Area

There is a recommendation that the declared zones should be focused on the semi-arid and arid zones of Central Australia, and the boundaries should approximate the northern boundaries of the Alice Springs and Tennant Creek Regional Weed Strategy boundaries. It is also recommended that ongoing monitoring of buffel grass, including beyond this region, is included in a statutory weed management plan.

## 5.7. Funding

Declaring buffel grass as a Class B weed will have resourcing implications on all land tenures. This means that funding, human and other resources will be required to implement management measures effectively. Without sufficient allocation of resources, it may be difficult to carry out the necessary control actions and monitoring programs.

The TWG gave careful consideration to the complimentary measures required for effective management of buffel grass. The Group was clear that declaration of buffel grass in and of itself would not achieve the intended objectives. The importance of continuity of funding was emphasised by the TWG for the following reasons:

- Long-term commitment – Buffel grass management is a long-term endeavour that will require sustained effort over multiple years. It is not a one-time fix but an ongoing process that involves monitoring, control measures, research, and evaluation.
- Fire Risk Mitigation – Buffel grass increases the fire risk in affected areas, particularly during high fire danger seasons. Continuity of funding allows for consistent implementation of fire mitigation strategies, such as fuel reduction programs and targeted control measures, to minimize the risk and impact of wildfires.
- Maximising impact – Buffel grass management requires a comprehensive and multifaceted approach that includes research, planning, education, on-ground actions, collaboration with stakeholders, monitoring and compliance.
- Adaptive management – The management of buffel grass is an evolving process that requires adaptive management strategies. Continuity of funding allows for flexibility and adaptability in responding to seasonal variability of growth and spread, new challenges, emerging research findings, and the development of innovative solutions. It enables the adjustment of management approaches based on the effectiveness of previous efforts, the changing needs based on weather variations and dynamics of buffel grass infestations. Establishing a trust fund would provide proactive or 'just-in-time' funding for buffel grass management, ensuring resources are available to address the variable nature of its growth and spread.
- Capacity building – Continuity of funding supports capacity building initiatives, including training programs, workshops, and knowledge sharing platforms. Investing in capacity building, ensures the availability of a skilled workforce capable of implementing effective management practices.
- Governance, planning and coordination – The establishment of a WAC requires resourcing including representative meeting fees and secretariat support.
- Compliance and enforcement – Monitoring of compliance with and enforcement of obligations becomes crucial upon declaration. It requires a strategic, integrated approach recognising that other legislative levers should be used to maximise the impact of management interventions. Effective compliance is important to remain responsive to the various landholders' effort and ability, with tailored responses to influence landholder behaviour in a positive way.

## 5.8. Knowledge and best practice management

There is a broad range of current management methods and their benefits and challenges were considered by the TWG. These include:

- Buffel Busting – A highly labour intensive but very effective over a small area for asset protection.
- Chemical treatment – A labour intensive process, but when applied strategically, has shown good impact in specific areas for asset protection. Opportunistic, strategically timed, targeted spraying after rain, fire or slashing, and broad acre spraying, may be effective control methods.
- Slashing – Used in combination with opportunistic spraying, has proven effective for asset protection but requires ongoing revisits to prevent regrowth. Anecdotal evidence from road corridors in the south west is that constant slashing without complementary measures promotes spread. Slashing increases the effectiveness of subsequent herbicide application, just as fire does, but without the associated risks and impacts of fire.
- Fire Breaks – Created between large patches of fuel help to reduce the fire impact of buffel grass over a broader area. Alternative ways to create fire breaks should be considered.
- Alternative pasture species – Planting and promoting the availability of alternative pasture species may support the long-term nutrition of stock by ensuring a diverse mix of native species remain available and that buffel grass doesn't become a monoculture. This will also provide food resources for native fauna on pastoral lands Exploration of viable alternative native species is required.
- Grazing – Can be an effective fuel reduction tool and is acknowledged as a valid methodology on pastoral estate for control of growth.
- Fire – Has been used extensively, and in some cases effectively, for asset protection and benefits the ecosystem by reducing and interrupting fuel loads. Positive feedback loop between fire and buffel grass may indicate continual fire in the landscape to be counterproductive (refer slashing and chemical options above).
- Promotion – Planting, promoting and irrigating buffel grass to promote growth, improve pasture, replace native vegetation that is less profitable, and improve carrying capacity, are currently practiced in some limited areas. However it was noted that relatively few pastoralists actively plant or irrigate buffel grass any more (as it is already present and self-sustaining) or actively promote spread. Growth is promoted through best practice grazing management where buffel grass already exists (which promotes perennial grasses including buffel grass). Continued planting or deliberate spread beyond practicing good grazing management was not considered desirable by the majority of working group members.
- No Action – Not acting in combination with deliberate planting, is a course of action which has led to buffel grass proliferation in many areas, and no action now would enable continued spread and proliferation unchecked.

Knowledge of biological control of buffel grass is limited. Biological control usually involves the introduction of specific insects or pathogens that target the weed and reduce its growth and reproduction. Biological control agents can also include vertebrate animals such as the strategic use of grazing animals (e.g. cattle). The introduction of any biological control agents requires thorough research and assessment to ensure that the introduced organisms do not have unintended negative impacts on native plants or ecosystems (e.g. cane toads). While considered to be a potentially valid long term option, the introduction of species to control buffel grass is complex and requires inter-jurisdictional agreement.

There is a need for more research on the suitability of residual herbicide treatment in particular soils, investigation of incentive options to rehabilitate areas affected by buffel grass spread, better clarity on grazing as a management tool, alternatives to repeated burning to minimise the positive feedback loop for buffel grass and fire, opportunities to generate income from buffel grass management including

biodiversity methodologies, and other opportunities for collaboration with the Commonwealth government.

## 5.9. Understanding the extent

There is a need for improved knowledge about buffel grass distribution, in particular higher definition, more granular distribution probability maps. Current mapping practices coarsely define buffel grass distribution within 2500 km<sup>2</sup> units populated with GPS locations that have been identified or verified by field staff.

The use of remote sensing, time series satellite images, new techniques in recognising photosynthesising signatures of grasses and the use of drone technology and machine learning were all considered valid opportunities for improved mapping that require further investigation.

Higher definition mapping allows for:

- A detailed assessment of the extent of buffel grass across the landscape;
- A clear picture of areas that are highly infested and areas that are currently unaffected;
- Predicting areas most at risk of spread or where spread has recently occurred and prioritising management efforts, targeting control measures, and allocating resources efficiently;
- Frequent and accurate monitoring of buffel grass infestations and the effectiveness of management actions;
- Capturing the spatial and temporal changes in buffel grass coverage, facilitating the evaluation of management strategies and their effectiveness over time. This information helps to gauge progress, identify areas that require additional attention, and adjust management approaches as needed, and
- More accurate assessment of the risk posed by buffel grass and a better understanding of the proximity of buffel grass to vulnerable ecosystems, infrastructure, and communities.

## 5.10. Education Programs

There is a need to delineate the effectiveness of traditional ways of using fire in parts of the landscape with predominantly native vegetation compared to areas where fire is now fuelled partly or predominantly by buffel grass fires. Burning practices that have been used for millennia by Aboriginal people in Central Australia and practices that have been used by land managers in parks and reserves over recent decades which often incorporate the former, may no longer be effective or appropriate in areas where buffel grass has altered fire regimes. Education of all managers who use fire as a tool is required to improve understanding of fire behaviour and the use of fire in sensitive, buffel grass invaded areas.

## 5.11. Policies

There is ample financial and anecdotal evidence to support the declaration of buffel grass and regulate management practices in the arid and semi-arid zones of the NT. For more specific, granular interventions, information to establish the cost of managing buffel grass, and the cost to the economy without management should be investigated.

In addition, policies and procedures that inform and guide regulation and enforcement, land condition assessment policies, and weed declaration guidelines that are consistent with and informed by the NT Weeds Risk Assessment System should be reviewed to ensure there is no conflict with existing or new legislation that is considered necessary based on the current state of knowledge.

## Attachment 1

### TWG Dissenting Views

Chris Materne

Nicole Hayes



**From:** Chris Materne <Chris.Materne@nt.gov.au>  
**Sent:** Monday, 20 November 2023 4:49 PM  
**Subject:** RE Buffel Grass TWG Recommendations - Revised dissenting view

Buffel Grass Technical Working Group

Declaration Recommendation – revised dissenting view following the fifth meeting - Chris Materne, 20 November 2023

I wish to table my concerns with the proposed weed declarations recently agreed to by the majority of members of the Buffel Grass Technical Working Group (TWG).

I acknowledge that the TWG is seeking to find an answer that will balance the challenges and benefits that buffel grass offers to people in the Northern Territory however, I do not believe that the proposed declaration recommendation under the NT Weeds Act is warranted, or achieve the desired outcome. In addition, I believe that it is likely to cause significant challenges for pastoral and large freehold land managers.

I strongly feel the first recommendation should be to establish a Weed Advisory Committee to obtain the necessary information required to developing a NT wide strategic management plan. This will identify if there is a need to regulate Buffel grass management under the Weed Management Act, and at which classification, if the desired management objectives are not already covered by existing Acts.

My primary concerns are:

1. That a Class B declaration for all land tenure in Central Australia, ignores advice from recent publications (Buffel Grass (*Cenchrus ciliaris*): NT Weed Risk Assessment Technical Report, 2022) that feasibility of control is low, that eradication was not possible and spread would at best be only slowed.
2. That a Class B declaration for the pastoral estate is undesirable because the species has significant value as a pasture species. More importantly, it will be unreasonably onerous on the pastoral industry to avoid any human spread and is unlikely to achieve the goal of limiting the spread of buffel grass beyond what will continue to occur naturally.
3. That there are significant knowledge gaps that should be addressed in line with the NT weed declaration process for contentious weed, prior to considering weed declarations; including distribution and density mapping, feasibility of control, economics evaluation, or evidence of long-term control success.
4. At the fourth meeting, the TWG agreed that if Buffel Grass were to be declared a weed that a zoned approach based on Land Tenure would be needed. The current draft recommendations put forward in fifth meeting fails to acknowledge this. I feel a zoning approach is critical for such a contentious species; a zoning approach based on latitude, distribution, density and Land Tenure.

1. Class B declaration – feasibility of preventing growth and spread

I am concerned that the proposal will fail to achieve the intended purpose of declaration for the following reasons:

- The NT Weed Risk Assessment Technical Report, 2022 assessed the buffel grass ‘Weed Risk’ as very high and ‘Feasibility of control in the Alice Springs/Tennant Creek regions’ as low. It recommends ‘Targeted control/Protect priority sites’ in the Alice Springs/Tennant Creek and Katherine regions.’ This report has only recently been completed by weed control experts and I believe that their opinion should carry considerable weight. Targeted control and the protection of priority sites does not necessarily need Buffel grass to be declared as it has already been recognised as a ‘threatening process’ by the federal government and endorsed by the NT government through various Park management plans. The TWG heard of numerous Targeted control programs

already being undertaken across Central Australia without declaration and the struggles they were facing to either eradicate or prevent natural spread.

- The Buffel Grass Technical Working Group (TWG) has acknowledged that eradication is not possible outside intensively and continuously managed target areas, and that ‘control of spread’ is also unlikely and at best can only be slowed.
- All control options will be on-going, costly and potentially logistically unachievable due to the scale of the issue, across large areas of inaccessible country with minimal infrastructure.
- Critical stakeholders have not been consulted with this proposed recommendation eg DIPL as manager of Crown Lands, Local Councils, freehold land owners. Unless they are capable of meeting the responsibilities of meeting a Class B declaration it is unlikely to be successful.
- If a Class B declaration for buffel grass cannot be complied with, it will potentially raise questions about the strength of the Weed Act more broadly.

## 2. Class B declaration - impact on the pastoral industry

- Buffel grass is a valuable component of pasture for cattle production and the industry benefits from using the species strategically
- Buffel grass creates palatable, nutritious standing feed for cattle that can maintain its value for more than a year after a growth event and so in many areas it contributes to drought resilience of pastoral businesses
- Buffel grass has a positive contribution to Land Condition in the context of sustainable pastoral production, which is reflected in the DEPWS guidelines for monitoring the condition of pastoral leases.
- In some places buffel grass increases the proportion of pasture that is perennial and can increase long-term safe carrying capacity
- Buffel grass can act as a soil stabiliser and pioneer species in reclamation/rehabilitation of degraded areas. Requirements to avoid human spread via transportation will place onerous restrictions on standard pastoral operations e.g. transportation of livestock, equipment and goods.
- Much of the current buffel grass distribution across Central Australia and in the pastoral estate has occurred through natural spread rather than dedicated human actions.

Data from the Old Man Plains Research Station has shown that buffel grass increased in frequency from 2011 to 2015 with no human involvement other than stocking according to the recommended long-term carrying capacity.

In the 2010 Pastoral Industry Survey, only 1.5% of the NT pastoral estate reported improved pastures and this included legumes and other species in the northern regions.

Buffel grass has been used as an improvement pasture species in the Douglas-Daly and Sturt Plateau regions for over 40 years, and spread has not occurred outside the intended sown area (Phil Hausler/Tom Stockwell pers. comm.).

## 3. Knowledge gaps that limit the accurate classification of weeds

I feel that the following knowledge gaps should be addressed prior to declaration, and should form part of the TWG recommendations:

- Up-to-date distribution and density mapping at a suitably scaled and the identification of ‘clean areas’.
- Evidence of successful long-term control methodology, including economic analysis.

- A clear expectation and timeline of what the proposed declaration could achieve.

My view reflects the role of DITT Agriculture Branch in supporting sustainable development of the pastoral industry:

- Listing Buffel Grass as a weed under the Weed Management Act is unlikely to achieve any change in the distribution and abundance in NT landscapes due to a lack of viable control options.

**Chris Materne**

Pastoral Production Officer

Livestock Industries

Northern Territory Department of Industry, Tourism and Trade

Nicole Hayes  
PO Box 2132,  
Alice Springs, NT 0870

23<sup>rd</sup> of November, 2023

John Gaynor,  
Convenor,  
Buffel Grass Technical Working Group

Dear John,

**Re: Dissenting View**

As a member of the Buffel Grass Technical Working Group (TWG) I have attended 5 meetings. To the best of my ability I have considered all information provided as well as seeking my own from reliable sources both in Australia and internationally. While all members of the group are respectful and understanding of my position, my family and I have been personally attacked on social media for our position on Buffel grass. I felt that the recommendation was always going to be a majority in favour of a Buffel grass declaration from the beginning. The TWG group is not evenly balanced and all stakeholders are not represented. I feel that declaring a weed before you know what the statutory impacts are, will have a variety of unintended consequences that have not been given adequate weight by the TWG. The TWG purpose was to analyse the issue of Buffel grass and how it's currently being managed in the NT. Consider and evaluate existing and alternative management approaches and make recommendations about the best management approach or approaches. Having the group declare what level Buffel grass should be classified as seems to be not within the "Outcomes" of the group. Particularly as it holds no powers or authority. Declaring Buffel grass a weed is a very simplistic approach for a very complicated problem. There will be a huge scope of work for a Weeds Advisory Committee to meet and mitigate legal requirements for the implementation.

The Pastoral Lands Board only attended one meeting as a guest. How a declaration will impact the requirements of Pastoralists under the Pastoral Lands Act while meeting the requirements of the Weeds Management Act seems to be unclear. I am concerned that Pastoral Land will become the only regulated entity under a weed declaration, as they are actively monitored. Within Pastoral Land Monitoring, it identifies plants for their grazing value and Buffel is ranked high. The ranking is derived from a number of factors including: Nutritional value, Palatability, Bulk, response to grazing and time of year. The presence of Buffel is referred to positively within these monitoring records. The view of the PLB was that Buffel falls under the 3 Ps. Perennial, Palatable and Profitable. The monitoring surveys done by PLB will give a negative result where once it was positive.

Buffel grass has provided erosion, dust control and soil conservation for Central Australia for around 50 years, on all land tenures. On Pastoral land it has proven itself to be an economically valuable grass which has assisted the industry greatly during times of drought and enabling a quicker recovery thereafter. I refer to drought caused either by fire or extreme seasonal conditions. A declaration of a valuable pasture resource does not allow diversification and pasture improvements and would see the decline in the pastoral value of land and increased economic constraints on businesses. This makes an already challenging industry vulnerable should the worst predictions of climate change develop. The drought resilience and quick to respond to summer rain attributes of Buffel can be better than many natives when they wilt in the heat.

Buffel has demonstrated itself to be the most useful plant in environmental rehabilitation works. The dust storms that engulfed towns and communities like Alice Springs have been quickly forgotten or never experienced.

### **NT Government**

In the 1950's the Northern Territory Government conducted large scale plantings of Buffel in Central Australia. During and following this time the Northern Territory Government researched, propagated, advised, indorsed, encouraged and had planted Buffel grass on the Pastoral estate as well as others. For the NT Government to now impose and regulate the Pastoral estate to control or eradicate Buffel then surely it would need to compensate and offer alternatives for economic loss, management, monitoring and control costs. All businesses seek to develop, make improvements and add value to what they produce. The Centralian pastoral industry is no different to others and pasture improvements should be encouraged. It shouldn't be expected to operate from a time 70 years ago when the operational costs were far less.

There are current inconsistencies in the way in which legislation is applied across different forms of land tenures.

A declaration will require a government committed to not just the initial funding, but be able to provide ongoing monitoring and maintenance. The budget required would not only be out of reach for the NT Government but also Federally. I am concerned that the Pastoral sector will not be eligible for any assistance, the financial and resource burden will fall upon them.

### **Feasibility and Cost**

Eradication is not feasible or viable. It would not only take an immeasurable amount of money but also human resources that do not exist. This wasted money and resources would be better spent on encouraging and researching other land management practices and plant varieties. Possibly investing in propagating and collecting native plants and seeds. From what I understand there is no new research into new varieties of Buffel. Buffel grass is already widespread and seemingly to be unmapped. There is also very little data on the distribution of Buffel grass but from knowledge of the pastoral sector its spread has been limited due to the control of cattle by grazing.

With reference to the research paper "Ranking buffel: Comparative risk and mitigation costs of key environmental and socio-cultural threats in Central Australia". The following is from that regarding an example of costing. "The best documented long-term buffel eradication case study, at the Alice Springs Desert Park, costs between \$50/ha/year in dry years and \$10,000/ha/year in wet years, with an average of \$5500/ha/year over 11 years (Gary Dinham in Friedel et al., 2008." My Personal friend carried out this work in the Desert Park and was extremely committed to eradicating the area of buffel. Once he left the site it was quickly infested once again. The Desert Park is a leading botanical garden if the commitment isn't there then what hope do the other Parks have. Government agencies are acknowledging weeds as being beyond the control solely of Governments. Even in Kakadu National Park, park management has given up on eradicating the majority of weeds within the park due to these activities being 'costly'.

As the Central Australian district is largely certified organic, chemical control methods are not compliant within the certification. Let alone the human, animal, water and environmental health concerns using chemicals will bring.

### **Biological Controls**

Buffel has been in our landscape since early in the Territory's history and was promoted by Government projects over 60 years ago. During this time it was restricted by an unintentional biological control "rabbits". Rabbits were not only detrimental to Buffel but the environment of Central Australia. Biological controls are not only expensive to research but the risk they pose is enormous and Australia's history has been marred by it. Buffel has hybridised and naturalised into a grass unique to Australia, the closeness to native grasses allows for the susceptibility of unintended consequences.

The frightening rhetoric that is being openly discussed and expanded on in social media regarding the use of biological controls such as Die Back is deeply concerning. Die Back is not limited to Buffel grass, it also

attacks native grasses and legumes. The unwelcome results of Die Back has already seen land overtaken by weeds that are of far greater risk to the environment than Buffel. A biological control across the border particularly Queensland would be detrimental to their production system and economy.

### **Fires**

Hysteria created around fires is used to target Buffel grass and point to it as the cause of fires. The fire threat that Central Australia that we are currently experiencing due to the past seasonal conditions, this would have occurred even without Buffel. The Barkley fire that burnt for over a month was an example of the right conditions. There was little Buffel contributing to those fires.

It has been frustrating to see so many fires started by people putting lives, environment, animals, infrastructure and businesses at risk. Harsher penalties and education on the serious impacts it's caused needs to be addressed and acted on.

As someone that has attended and fought many fires on not only our property but 6 others in the past few months and also in previous decades. By my side has been my family, if I felt that Buffel was of such a risk and the cause of such devastation, then I would not oppose a declaration. It has been obvious that Buffel has not been the culprit to the severity of fires. Native grasses like Kerosene, spinifex and Kangaroo grass along with Tea Tree have been our hardest battles to control. In most cases Buffel has slowed the fire down allowing more time to manage. I have seen propaganda from both Australian and International articles blaming the terrible Maui fires solely on Buffel. I have contacted Erica Fleishman, Director at the Oregon Climate Research Institute, College of Earth, Ocean and Atmospheric sciences. She was mentioned in one of these articles and I contacted her to seek more information and clarity. In her email to me she said "I don't think it's possible to say with certainty whether the Maui fire would have spread more slowly or burned fewer structures if Buffel grass was not present. I suspect that the winds were strong enough that the fire would have been quite difficult to contain regardless. The changes in vegetation structure and the types of plants present in the area have been extensive, and Buffel grass was one of many contributors to those changes."

### **NT Departments and land holders**

Under a declaration The Department of Infrastructure, Planning and logistics should be restricted and/or halted in their works where the contamination of material and the ability to access clean fill occurs. This would be most of Central Australia. Buffel grass predominantly establishes in disturbed environments like roadworks and spread seeds further than it would naturally disperse. DIPL do not currently have the budget to carry out essential road works, let alone manage overgrowth and weeds that already currently exist. Areas where the declared weeds like Grader Grass and Gamba are not being controlled and managed. It is not feasible and unrealistic for them to be able to have any sort of impact on Buffel within the road corridors.

The TWG was represented by 2 Park bodies, Central Australian Park as well as Parks Australia. The ability for Parks to increase the importance in the management and control of Buffel already exists and this should have been a priority many years previously. They had already determined that Buffel was at a high risk. My understanding from Parks there is no new money to manage Buffel, it is just to be removed from elsewhere in the budget. It is disappointing that Parks feel that the only way for them to manage and increase funding for their portfolio is with a declaration. Even though the prospects of being able to resource and have the budgetary requirements to do so will not be realistic. They will still be limited to focus on areas of cultural and environmental concerns, reflecting what Dr Marg Friedel has been saying for some time now. The resourcing for National Parks will continue to be inadequate and they will be unable to do anything.

Under a Buffel grass weed declaration Mining leases should also be restricted and/or halted from their operations where Buffel grass exists. There are already other classified weeds that a declaration does not inhibit or stop the spread of weeds and is highly unlikely to do so in the future.

For more than 10 years the NTCA has been calling for Government to invest in wash-down bays for machinery moving across the Territory's landscapes. Not one has been built. Before conducting minerals

exploration, the Government does not make it a mandatory requirement for these companies to wash down their machinery – which leads to weeds spreading. Before entering pastoral stations, NT Government employees are not required to wash-down their vehicles – which leads to weeds spreading. Practical steps that the industry has been asking for, for some time, have been ignored due to the difficulties they would place upon third parties entering pastoral lands and the limited effect they would have on preventing weed spread. The Government is all too happy to exempt itself from the rules due to pragmatic difficulties in obeying them, and yet now wants to place further burden on industry and additional red tape.”

Private land holders in rural areas will also feel the burden of management and control. Their job will be made even harder because the Crown lands surrounding them will allow for reinfestation. Crown Lands and Local Councils are also already underfunded to meet the requirements of a weed declaration. Over the years there has been little to no management of overgrowth and weeds in the rail corridors. It is highly unlikely that this will change with a declaration.

### **Northern Pastoral NT**

Pastoral operations in the north have worked extremely hard and found it difficult to establish Buffel as an improved pasture and have invested a considerable amount of money and time to do so. In the North it is evident that Buffel grass is restricted and limited in its spread to soils of low fertility, PH and phosphorus deficiencies. To add to that and the competitive tropical grasses of the north will impede its spread so that it will be insignificant. The Northern pastoral industry has not been represented at the TWG meetings and the TWG knowledge is restricted to Central Australia. There are examples of where declared weeds do not have the same restrictions depending on regions.

### **South Australia**

The TWG was given a presentation by Troy Bowman, the South Australian Buffel Grass State Coordinator. It has been 8 years since SA declared Buffel a weed. There seems to not be any evidence that large scale success in preventing spread, controlling, managing or eradicating Buffel has occurred. The South Australia Buffel Grass Strategic Plan 2019-2024- Risk Assessment: says on Rangeland grazing, weed management is assumed to be sporadic and minimal. In the Native vegetation it is also assumed that there is no routine weed management. They have found that there are considerable challenges to control Buffel. This hasn't been updated since 2018. The focus seems to be to protect and manage significant sites. From what I understand the project isn't being monitored to the extent it requires and there doesn't appear to be an update since 2019 when the Strategic Plan was implemented.

In conclusion I acknowledge that there are areas that the impact of Buffel is different to that of Pastoral land. Funding should be available to target specific areas as that will be the best option and a weed declaration should not be necessary to do that. A meaningful conversation about steps to mitigate weed spread in the NT and how protecting areas of high conservation value is welcome. However, a weed declaration for a grass that has spread far beyond our ability to eradicate or control it, will be seen by other members of the industry as vindictive and futile.

Regards,

Nicole Hayes

## Attachment 2

### TWG Meeting Minutes

Meeting 1 Minutes

Meeting 2 Minutes

Meeting 3 Minutes

Meeting 4 Minutes

Meeting 5 Minutes



# 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, Uluṟu-Kata Tjuṯa 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 naturalisation cycle of buffel grass and the emergence of unique Australian hybridised 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, emphasising 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

## Action List

Item	Due
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

# Buffel Grass Technical Working Group Meeting 2 – Minutes

Date: Wednesday 19 July 2023 Time: 9:00am – 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, Department of Climate Change, Energy, the Environment and Water (DCCEEW).
- Chris Materne, Pastoral Production Officer, Agriculture, Fisheries and Biosecurity Division, Department of Industry, Tourism and Trade (DITT).
- David Albrecht, Botanist, NT Herbarium Alice Springs, Flora and Fauna Division, Department of Environment, Parks and Water Security (DEPWS).
- Nicole Hayes, Station Manager, Undoolya Station.
- A/Prof Christine Schlesinger, Associate Professor, Environmental Science, Charles Darwin University (CDU), Alice Springs Campus.
- Andrew Turner, District Manager, Top End Northern Australian Parks, DEPWS (proxy for Phil Cowan).

### Convenor

- John Gaynor, Regional Director Southern, DEPWS.

### Executive Officer

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

### Speakers

- Dr Fiona Fraser, Australian Government Threatened Species Commissioner, DCCEEW.
- Troy Bowman, SA Buffel Grass State Coordinator, Landscapes Alinytjara Wilurara, SA Government.

### Guests

- Chris Day, Senior Director Parks and Wildlife Operations, DEPWS (additional proxy for Phil Cowan).
- Ben Kaethner, Regional Land Management Coordinator, CLC, (future proxy for Nick Ashburner)
- Liz Lindsay, Threat Policy and Planning, Biodiversity Division, DCCEEW.
- Claire Punch, Department of the Chief Minister and Cabinet.

### Apologies

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

### Minutes

- Conni Warren, On the Same Page Consulting.

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

## Meeting open

- Discussion regarding minutes and outcomes from the previous meeting. Several minor changes were discussed, and the updated minutes were accepted and approved by the group.

**ACTION:** Finalised minutes to be published on NTG web page.

## General Discussion

### Mapping

- The need for more granular mapping was discussed further, as well as integrating satellite information with done-captured imagery in target areas, and the possibility of using drones for broad acre spraying.
- The TWG agreed that both satellite and drone mapping are necessary for broad scale and asset management work, and both technologies require further development.

**ACTION:** Rene Bartolo, Chief Pilot from DCCEEW, to be invited to present her work on buffel grass mapping and AI software at a future meeting.

## Guest Speaker – Dr Fiona Fraser

- Threatened Species Commissioner Dr Fiona Fraser gave a presentation on her role and her department's role in environmental management in general and as it relates to buffel grass management.
- She discussed the Convention on Biological Diversity, and buffel grass's consideration as a potential Key Threatening Process (KTP) along with other threats such as deer, pigs and chytrid, as well the decision to select cats, foxes, gamba grass and myrtle rust due in part to stronger state agency support, and the potential for stronger partnerships.
- The 110 priority species, including the Central Rock Rat, and the 20 Priority Places, including the MacDonnell Ranges, were chosen to have a wide spread ecologically, geographically, and culturally, and also so that work will have flow-on effects (co-benefits) to other threatened species.
- Buffel grass is captured under Novel Biota as a KTP placing native flora and fauna at risk and there is a Threat Abatement Advice (TAA), but no Threat Abatement Plan (TAP).
- Discussions on the timelines and progress of the National Established Weed Priorities (NEWP) Framework and nominations for Weeds of National Significance (WoNS).
- Dr Fraser discussed the threat to MacDonnell Ranges as a priority place and that buffel grass is a major threat to all of the biota in Central Australia. She noted that the focus is not on eradication but to manage spread to support threatened species, biodiversity and important cultural assets.
- Dr Fraser emphasised that when considering potential recommendations from this TWG, it is very important to demonstrate interest and commitment to exploring all the control tools available for better regulation and management of buffel grass.
- Dr Fraser suggested that Dr Natalie Rossiter-Rachor be invited to comment on the listing of gamba grass and how that affected management, the process and connection between declarations across Commonwealth, NT and other jurisdictions.

**ACTION:** Invite Dr Natalie Rossiter-Rachor to discuss the realised and potential on-ground benefits of WONS declaration.



- Dr Fraser recommended that the group act decisively and consider the economic, ecological, social and cultural impacts of not managing buffel grass when making recommendations to the Minister.
- Dr Fraser encouraged collaboration between sectors and expressed the Commonwealth's willingness to partner with government and non-government stakeholders.
- Dr Fraser expressed a preference for supporting actions where state and federal policy are aligned, to protect sites of ecological value and minimise the spread of buffel grass into these areas.

## Guest Speaker – Troy Bowman

- South Australian buffel grass state coordinator Troy Bowman gave a presentation on the recent history of buffel grass in South Australia over the past ten years.
- A weed declaration was made using a zoned approach that takes into account the invasiveness, impact and feasibility of control. Enforcement activities were used in the lower density zones to enforce hygiene and spread prevention, however, asset protection activities in the densely infested areas were led by landholders and enforcement was not a factor.
- Troy Bowman talked about the importance of prioritising protection of high value environmental, cultural and economic assets and the need for a longer term commitment to sustained management action.
- He also emphasised the geographical, climatic and ecological, differences between the arid and semi-arid zones.
- He also discussed the benefits and challenges that have come from the weed declaration and observed that longer term financial commitment to sustained action will provide the best chance for improvements.
- The declaration provided enforceable incentives for control and prevention of spread through hygiene requirements and legislative responsibility in project proposals, particularly on new road construction projects into clean areas.
- The project included chemical trials including organically certified options, roadside surveys and development of a distribution database and prioritisation tool for control activities, as well as significant community engagement.
- Discussions regarding chemical control options centred on various combinations of glyphosate and flupropanate, similar to what is being trialled in the NT, as well as the pine oil additive which is approved for use on organically registered pastoral properties.
- The TWG and Troy Bowman agreed that collaboration between the Department of Primary Industries and Regions, South Australia (PIRSA) and DEPWS with assistance from various chemical producers should be explored to improve knowledge regarding chemical rates and application methods.
- Troy Bowman was interested in collaborating with potential new satellite and drone survey methodologies that will be explored as an outcome from this TWG.
- The TWG and Troy Bowman agreed that there was a need for cross-jurisdictional partnerships and a nationally consistent approach to secure ongoing commitment and prevent losing progress.
- The TWG agreed that a significant takeaway from this experience is the importance of using different zones, continuity of funding, and engagement with landholders, particularly in transport corridors.

**ACTION:** South Australian Buffel Grass Project Summary and Fact Sheet to be distributed to the TWG.

## General Discussion

### Biological Control

- TWG discussed native and pre-existing biological control options that have been identified in Queensland and some which have already turned up in the NT.
- In the previous meeting, A/Prof Marg Friedel pointed out the climatic differences that may limit the effectiveness of fungal agents, and Troy Bowman noted that SA would face the same challenge with moisture dependence.
- Dr Fraser recommended that it is best to keep all options open, and to have a variety of tools available, noting that biocontrol is a long term option, and it would be good to consider its effect over decades.
- Dr Fraser stated that the Australian Government Department of Agriculture, Forestry and Fisheries, may consider supporting R&D into biocontrol options. Discussions then turned to the Environmental Invasives Committee and their role in the biological control approvals processes.

**ACTION:** The TWG agreed that further advice should be sought regarding biological control approvals processes and research opportunities, with a guest speaker at a future meeting.

## Weed Declaration

- The TWG discussed the feasibility of declaration, and potential advantages such as increased funding and partnership opportunities, as well as potential disadvantages, learning from the SA experience about the potential shortfalls, backlash from industry, and the potential for and costs to impact on other programs.
- Overview on the weed declaration categories, and how they might be applied, and then adjusted using a statutory weed management plan.
- Discussion on the potential to prevent introduction of new strains from Queensland, and the TWG agreed that further expert advice in this area is needed.

**ACTION:** Invite a representative from the Weed Management Branch to discuss legislative levers under the *Weeds Management Act 2001*.

- Nicole Hayes discussed a survey, which was conducted by the NT Cattlemen's Association (NTCA) asking members what they thought about a Class B declaration. Thirty-two responses were received, which represents a majority of pastoral properties in the region.

**ACTION:** If possible, Nicole Hayes will provide the full Class B declaration survey to members to read after seeking permission from NTCA.

- It was agreed that a more nuanced conversation is needed with all stakeholders including pastoralists, NTCA, and traditional owners regarding the control options for buffel grass and their potential impacts.

## Management Options

- The currently available management actions that were discussed at the previous meeting were recapped and agreed upon, those being:
  - **Buffel Busting** – Highly labour intensive but very effective over a small area for asset protection.
  - **Chemical** – Labour intensive, but when applied strategically, it has shown good impact in specific areas for asset protection. Opportunistic and strategically timed spraying post fire may be effective but requires further investigation.
  - **Slashing** – Used in combination with opportunistic spraying, has proven effective for asset protection but requires ongoing revisits to prevent regrowth. Anecdotal evidence from road corridors in the south west is that constant slashing promotes spread.
  - **Fire Breaks** – Created between large patches of fuel help to reduce the impact of buffel grass over a broader area.

- **Competition** – Planting, promoting and irrigating alternative species in order to control buffel grass may create competition and also provide alternative habitat and food options for native fauna and stock.
- **Grazing** – Can be used as a fuel reduction tool -potential negative impacts need further study.
- **Fire** – Has been used extensively, and in some cases effectively for asset protection and has benefited the ecosystem by reducing and interrupting fuel loads. Positive feedback loop between fire and buffel may indicate continual fire in the landscape to be counterproductive (refer chemical option above).
- **Do Nothing** – Not acting is a possible course of action which may lead to buffel grass proliferation.
- **Promotion** – Planting, promoting and irrigating buffel grass may be currently happening in an area to promote growth, replace native pastures that are less profitable and improve carrying capacity.

## Legislative Levers

- Discussion on the potential legislative levers that are available for the management of buffel grass. These included the *Weeds Management Act 2001*, the *Bushfires Management Act 2016*, and the *Pastoral Land Act 1992*.
- It was agreed that expert advice is needed on the various legislative levers available within Acts, and that guest speakers should be sought for each one.

**ACTION:** In addition to the above listed invitation representing the Weed Management Branch, expert presentations should be sought from Bushfires NT and Pastoral Lease Administration.

## Nature Repair Market

- Nature Repair Market was not discussed at any length during this meeting, and it was noted that this Commonwealth initiative is still subject to a Senate Committee process. It was suggested that valuable learnings about assessment methodology from the Carbon Credit Market may be applicable and that it would be worth hearing from Ben Kaethner about his experience in that area.

**ACTION 8:** Ben Kaethner from CLC to be invited to speak about assessment methodology in the Carbon Credit Market.

## Logistics

- Next radio interview to be conducted by John Gaynor.
- Next meeting – Meeting 3 – 31 August 2023.
- Upcoming meetings – 5 October and 16 November 2023.

## Meeting closed

- The meeting concluded at 1:25pm

## Action List

Item	Due
1. Finalised minutes to be published on NTG web page.	ASAP
2. Rene Bartolo, Chief Pilot from DCCEEW, to be invited to present her work on buffel grass mapping and AI software at a future meeting.	Upcoming meeting
3. South Australian Buffel Grass Project Summary and Fact Sheet to be distributed to the TWG.	ASAP
4. The TWG agreed that further advice should be sought regarding biological control approvals processes and research opportunities, with a guest speaker at a future meeting.	Upcoming meeting
5. If possible, Nicole Hayes will provide the full Class B declaration survey to members to read after seeking permission from NTCA.	Upcoming meeting
6. Invite a representative from the Weed Management Branch, Bushfires NT and Pastoral Land Administration to discuss in further detail the legislative levers available under the <i>Weeds Management Act 2001</i> , the <i>Bushfires Management Act 2016</i> and the <i>Pastoral Land Act 1992</i> .	Meeting 3
7. Invite Dr Natalie Rossiter-Rachor to discuss the realised and potential on-ground benefits of WONS declaration.	Meeting 3
8. Ben Kaethner from CLC to be invited to speak about assessment methodology in the Carbon Credit Market.	Upcoming meeting

# Buffel Grass Technical Working Group Meetings 3 – Minutes

Date: Thursday 31 August 2023 Time: 9:07am – 12:48pm  
Location: Conference Room, Tom Hare Building, Alice Springs, and MS Teams

## Attendance

### Members

- **Tracey Guest**, Natural and Cultural Resource Manager, Uluru-Kata Tjuta National Park, Parks Australia, Department of Climate Change, Energy, the Environment and Water (DCCEEW).
- **Chris Materne**, Pastoral Production Officer, Agriculture, Fisheries and Biosecurity Division, Department of Industry, Tourism and Trade (DITT).
- **Nicole Hayes**, Station Manager, Undoolya Station.
- **A/Prof Christine Schlesinger**, Associate Professor, Environmental Science, Charles Darwin University (CDU), Alice Springs Campus.
- **Ben Kaethner**, Regional Land Management Coordinator, Central Land Council (CLC), (proxy for Nick Ashburner).
- **Louise Kean**, A/ District Manager, Top End Northern Australian Parks, DEPWS (proxy for Phil Cowan).
- **Sarah Fairhead**, Executive Director Southern Region, Department of Infrastructure, Planning and Logistics (DIPL).

### Convenor

- **John Gaynor**, Regional Director Southern, DEPWS.

### Executive Officer

- **Michelle Franklin**, Senior Project Officer, Weed Management Branch, DEPWS.

### Speakers

- **Emma Burcher**, Weeds Planning Officer, Weed Management Branch, DEPWS.
- **Roni Opden**, Manager, Gamba Fire Mitigation Unit, DEPWS.
- **Dr Alana Mackay**, Director, Pastoral Branch, DEPWS.

### Guests

- **Emily Rutherford**, Senior Policy Advisor.
- **Claire Punch**, Chief of Staff.

## Apologies

- **Phil Cowan**, Director, Central Australian Parks, Parks and Wildlife Division, DEPWS.
- **Nick Ashburner**, Manager, Land Management, CLC.
- **David Albrecht**, Botanist, NT Herbarium Alice Springs, Flora and Fauna Division, DEPWS.
- **Dr Natalie Rossiter-Rachor**, Senior Lecturer, Environmental Science, CDU, Darwin Campus.

## Minutes

- **Conni Warren**, On the Same Page Consulting.

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

## General Business

- Discussion regarding minutes and outcomes from the previous meeting. Several minor changes were discussed, and the updated minutes
- Minutes – **Moved:** Chris Materne, **Seconded:** Nicole Hayes.

**ACTION:** Finalised minutes to be published on NTG web page.

- Discussion regarding reference in previous minutes to the property thought to 'promote growth' of buffel grass through 'bailing and distributing'. The Chair recommended members listen to the ABC radio interview where the Manager of Ooloo Farm discusses this.

**ACTION:** Distribute recording of Ooloo Farm Manager interview to all members.

- Introduction of new member; Sarah Fairhead, Executive Director, Southern Region, DIPL.

## Guest Speaker – Emma Burcher

- Weeds Planning Officer, Emma Burcher gave a presentation on the *Weeds Management Act 2001* and the related statutory instruments and plans that are associated with it.
- Discussion included Regional Weed Management Strategies, Statutory Weed Management Plans and weed declaration classes including A, B, C and D and their requirements.
- The TWG also learned that all weed declarations regardless of class, result in the weed being subject to the general duties stipulated in the *Weeds Management Act 2001*, which apply to a person and a property owner. This means that they cannot be sold or purchased, and must not be propagated, nor brought into, stored or transported in the Territory.
- The general duties under the *Weeds Management Act 2021* also require compliance with any statutory weed management plan relevant to the weed.
- The possibility of split declarations was also explored, where a weed can be classified as A, B, C, or D in different geographic regions, as well as the possibility of restricted declarations that only cover specific areas. It was mentioned that it is possible that some parts remain undeclared.
- Gamba grass was used as an example and the “Weed Management Plan – Gamba Grass 2020-2030” was used as an example to demonstrate some of the potential clarifications, specifications, and additional requirements that can be laid out in a Statutory Weed Management Plan.
- Gamba grass was also used as an example species for the formation of a statutory Weeds Advisory Committee (WAC), and the purpose, formation and makeup of a WAC was discussed.
- As discussed, the purpose of a WAC is to develop draft weed management plans, and advise the Minister on the progress of weed management. The membership of the WAC should include

stakeholders who have expertise or experience relevant to the management of declared weeds or who represent groups or organisations that are concerned with the management of declared weeds or related matters.

**ACTION:** Copy of Emma Burcher’s PowerPoint presentation to be distributed to all members.

- Discussion among group members included the pros and cons of the potential to declare specific sites (high value assets) as Class A and require eradication in those parts. Typically a site specific eradication plan would be managed under a property management plan. The general agreement was that options to protect assets voluntarily have always been available, but legislation is likely to provide stronger incentives.

## Guest Speaker – Roni Opden

- Roni Opden, Manager of the Gamba Fire Mitigation Unit, gave a presentation on the history and integration of the Gamba and Fire compliance programs, using a holistic approach with legislative levers from both the *Weeds Management Act 2001* and the *Bushfire Management Act 2016* used simultaneously.
- DEPWS’s Gamba Management Framework was presented, highlighting the fact that only two out of the eight actions listed were enabled by the weed declaration, illustrating that a lot of gamba grass management is done outside of its declared weed status.
- Clarification was given regarding the difference between a weed based approach targeting outliers and preventing spread, and an asset protection approach, focusing on mitigating fire risk in the core of the infestation.
- The various enforcement tools used for gamba grass management were explored and their utility in the case of buffel grass was considered by the group. This included a general top-down approach to planning, starting with a broad landscape based strategy such as the Gamba Management Framework, best practice management regimes for various regions and properties, and then targeted compliance activities under relevant legislation if/when it was required.
- It was also highlighted that since 2008 when gamba grass was first declared, the NTG has worked hard and has eradicated it in some parts of the A zone, where this is feasible. This work is not visible to the public, and most community feedback surrounds the B zone where it is visible and fuelling wild fires. The spread in these areas is continuing, but it has been successfully slowed.
- A discussion was held regarding weed declarations and listings, and their impact on funding for research. As gamba grass is identified as a threatening process there is federal funding available to assist with projects or programs to manage biodiversity, however this funding may be more in relation to ecology for threatened species.
- Additional funding has been made available following declaration of gamba for on-ground actions.
- Recommendations based on gamba/fire mitigation experience were to;
  - Start with a Strategy for areas of concern
    - Prevent spread, reduce fuel, increase biodiversity, etc
    - Weed Plans, Fire Plans, Threatened Species Action Plan
  - Consider Best Practice regime
    - Spray, slash, graze, scrape, sterilise, etc
    - Sacrifice zones
  - Enforce if/as required
    - Weeds Act: good to address introduction, spread and biology
    - Bushfires Act: good to address fuel loads, firebreaks and asset protection
    - Other legislation?
- A question was raised regarding buffel grass in the northern parts of the NT and the pros and cons of having an eradication zone in outlying areas where buffel grass is isolated.

- There was some general conversation about the impact of rainfall, temperature and humidity on habitat suitability. It was agreed that the question should be referred to the NT Weed Risk Technical Committee for consideration.

**ACTION:** Question regarding buffel grass habitat suitability in the north, to be referred to the NT Weed Risk Technical Committee for consideration.

## Guest Speaker – Dr Alana Mackay

- Director of the Pastoral Branch, Dr Alana Mackay spoke about the *Pastoral Land Act 1992* and its place in managing the government’s large estate of pastoral properties across the NT.
- A general background on the pastoral land lease process was given, with an emphasis on the key term “economic viability of the pastoral industry” which is the basis of most of the additional duties and responsibilities built into a lease. A fundamental component of a lease is the general duties of a lessee, which include the function of improving the condition of the land.
- The group learned the Rangelands Monitoring branch delivers an annual report to the Pastoral Land Board, which gives a snapshot of how the estate is tracking and functioning. This report identifies individual stations, and details weeds that are present, how many ferals there are, and whether there are erosion issues, and goes into detail about those kinds of land degradation issues.
- Buffel grass, in a land management context, is considered a 3P grass, (palatable, perennial & productive) and therefore contributes to a positive assessment of land condition. Weed declaration would not change its 3P status but would change the way it is assessed.
- It was explained that the implications of a weed declaration of any class, depending on its location, may require reconsideration of the Rangelands Monitoring process. The *Pastoral Land Act 1992* doesn’t recognise classes, so use of a “weed” of any classification would be reported on through the monitoring process.
- The group heard that, under current policy, a weed declaration changes the way in which the condition assessment of pastoral land is considered. Depending on the recommendation, this policy may need review.
- Discussion was held regarding the implications of this aspect of the monitoring process and the question of how the presence of gamba grass on northern pastoral properties affects their monitoring and reporting.
- If buffel grass were to be declared a weed, monitoring would need to be adjusted. Where it is currently considered a positive fodder crop, it would then need to be identified as a declared weed used to manage land.
- The TWG also learned that the Pastoral Land Board can be called upon at any time by the Minister for an emerging matter, area of consideration or where they might need to hold a public hearing. This enables them to advise the Environment Minister of any potential risks or any information that might need to be provided in that context for the pastoral estate.
- The idea was also raised by a member of the TWG that the current method of monitoring where buffel grass is considered a pasture grass and increases the condition score of a property, is actually a contradiction given our current understanding of its impacts. Further discussion in this area is needed, particularly regarding what constitutes “use”.

## General Discussion

### Alternative species for land stabilisation and pasture improvement

- There was discussion regarding alternative species including native options that can be used for land stabilisation and pasture improvement. Comparisons were explored between alternatives, and buffel



grass, noting that the pasture improving species all require some weedy characteristics to make them fit for that purpose.

- Concern was raised that some pastoral landholders may look to other species which also have weedy characteristics and there is a need to regulate or be aware of this.
- Alternative native grass seed sources are in low supply and are comparatively more expensive than commercially available seed of introduced grass species. This leads to low take up of native species.
- Substitute grasses are most often introduced species, such as Sabi Grass. It has similar qualities to buffel grass, such as weediness, ease of establishment, nutritional value and quick growth, attributes that are ideal for soil stabilisation, drought resistance and reliable fodder.
- For the purposes of soil rehabilitation, in areas where there is existing surrounding buffel grass, seeding is not necessarily required due to a generally abundant seed bank.
- The conflict between biodiversity and buffel grass control was highlighted, when grazing is used as a management tool. Current good grazing land management standards promote diversity in perennial grass species which includes buffel grass. Grazing regimes that reduce buffel grass are generally overly intensive.
- Examples of where good grazing management neighboured ungrazed national parks were re-visited and it was agreed that the TWG should explore this difference further. A field trip was proposed on the South Road, through Old Man Plains Station, then the conservation reserve at Owen Springs, and through Simpsons Gap.

**ACTION:** Field trip for the TWG to be arranged for around the time of the October meeting, visiting selected pastoral and native park properties to look at grazing as a management tool on pastoral land and look at land management issues in other tenures.

## Interaction between fire and buffel grass

- The negative impacts of buffel grass were discussed including the loss of biodiversity, and it was noted and agreed that the impact of fire is probably the most significant negative impact of buffel grass, while it was also noted that biodiversity loss is significant where buffel grass becomes dominant even without fire, and this has been clearly documented. Fire significantly compounds this.
- Buffel grass's tendency to grow more extensively at the base of shrubs and trees leads to loss of these shrub and tree species over time by increasing fuel loads and increasing fire impact on these shrubs and trees and resulting reduction in both biodiversity and habitat/shade for native animals and for cattle.
- It was also discussed that local extinctions are not the only indicator that should be considered, but reductions in abundance of various more abundant species and habitats, for example loss of large trees, are highly impactful on the overall ecology of an area.
- The TWG agreed that fire is a natural part of the system and it would occur even without buffel grass, however its presence in a system leads to more frequent fires because it builds up sooner after a rain event and greatly increases fuel loads in most habitats. This impact is also likely to be exacerbated by climate change which is leading to more sporadic, heavier rain events.
- The positive feedback loop between fire and buffel grass was again highlighted, noting that the biggest risk to biodiversity is through fire. The need for the development of improved fire risk mitigation techniques was discussed with alternatives to constant burning including grazing, mechanical removal and technology assisted, targeted and broad scale herbicide techniques requiring further investigation.
- The impact of buffel grass fires on the carbon burning program was explored, noting that credits can be gained based on the number of young/small trees in an area. This is being impacted by the frequent fires and their impact on shrub and small tree density.
- The impact of gamba grass presence on the carbon methodology in the north was discussed, and the TWG agreed that this is an area that warrants further exploration in terms of buffel grass.

- Post fire/slashing herbicide treatment was discussed, highlighting the ongoing tree-collaring work conducted by DEPWS with assistance from Correctional Services. Learnings from this work and experience in management at Uluru were discussed and applied to broad scale situations including roadsides.
- The time to recover post fire/slashing was highlighted as an opportunity for non-targeted treatment of buffel grass before other species become susceptible to herbicide. Further research required on the most opportune time to spray post fire.
- The group discussed the positive and negative aspects of burning as a management technique, and identified that buffel grass spread into fire scars is a key issue.
- Broad scale firebreak discussion included the concept of large sacrificial fire break areas with reduced ecological value, and methods available to achieve them, such as graders, bulldozers, chemicals, and including fenceless grazing.
- It was identified that there is more work needed to be done to look at the frequency of fire, how much is burned in relation to tenure and vegetation and early fires versus late hot fires.
- The impact of buffel grass on young / small trees and shrubs and any subsequent arid lands carbon sequestration methodology requires further exploration.

**ACTION:** Progress with invitation to Ben Kaethner to attend October 5 meeting.

- Further research required on the nature and purpose of land tenure and the purpose of fire as a tool to either promote germination and growth or manage risk.

## Drone AI mapping of buffel grass

- A general update of the progress of the Uluru buffel grass drone mapping project was given by Tracey Guest, followed by discussion about its use in mapping treatments, and also for aerial spraying by drone.
- The general agreement within the TWG was that this area still needs more discussion and the invitation to Rene Bartolo from DCCEEW will provide more insight.

**ACTION:** Progress with invitation to Rene Bartolo to attend October 5 meeting.

## General Discussion

Discussion was held around the general leanings of TWG members:

- The impact of slashing and seed distribution on transport verges was discussed with agreement that the place of herbicide treatment as an alternative to constant slashing also needs further exploration.
- Further research is also required on the use of herbicide preferentially post slashing or fire. It was noted that fire or slashing without follow up treatment is ineffective and can promote buffel grass.
- The holistic approach of using multiple legislative options has merit requiring clarity around the purpose and priorities for management across different areas. It was generally agreed that this needs to be explored in order to determine the best legislative levers that can be applied, depending on the various locations and situations where buffel grass is causing negative impacts.
- It was highlighted the need for an overarching strategy or framework which will identify goals and intentions before legislative options are selected.
- The Buffel Grass Weed Risk Assessment Technical Report and Review were tabled as a guiding document for a potential strategy.
- The use of the Weed Risk Assessment system as a guide for management highlighted the need for better mapping in order to identify different management zones according to risk and feasibility of control.

- The implications were discussed of weeds and seeds being transported during mining and civil works operations when borrow pits are used to source gravel and soil to transport to other sites. It's possible to apply for and be issued a permit to transport weeds, and the person will need to outline how the fill will be transported and used, in order to prevent weed spread occurring.

## Logistics

- Field trip – around 5 October 2023 on date to be determined.
- Next meeting – Meeting 4 – 5 October 2023.
- Final meeting – Meeting 5 – 16 November 2023.

## Meeting closed

- The meeting concluded at 12:48pm

## Action List

Item	Due
9. Finalised minutes to be published on NTG web page.	ASAP
10. Distribute recording of Ooloo Farm Manager interview to all members.	ASAP
11. Copy of Emma Burcher's PowerPoint presentation to be distributed to all members.	October 2023
12. Question regarding buffel grass habitat suitability in the north, to be referred to the NT Weed Risk Technical Committee for consideration.	Next meeting
13. Field trip for the TWG to be arranged for around the time of the October meeting, visiting selected pastoral and native park properties to explore grazing as a management tool.	Next meeting
14. 6. Progress with invitation to Ben Kaethner to attend October 5 meeting.	Next meeting
15. Progress with invitation to Rene Bartolo to attend October 5 meeting.	Next meeting

# Buffel Grass Technical Working Group Meetings 4 – Minutes

Date: Thursday 5 October 2023 Time: 9:10am – 1:37pm

Location: Conference Room, Tom Hare Building, Alice Springs, and MS Teams

## Attendance

### Members

- **Tracey Guest**, Natural and Cultural Resource Manager, Uluru-Kata Tjuta National Park, Parks Australia, Department of Climate Change, Energy, the Environment and Water (DCCEEW).
- **Chris Materne**, Pastoral Production Officer, Agriculture, Fisheries and Biosecurity Division, Department of Industry, Tourism and Trade (DITT).
- **Nicole Hayes**, Station Manager, Undoolya Station.
- **A/Prof Christine Schlesinger**, Associate Professor, Environmental Science, Charles Darwin University (CDU), Alice Springs Campus.
- **Chris Day**, Senior Director Parks and Wildlife Operations, DEPWS, (proxy for Phil Cowan).
- **David Albrecht**, Botanist, NT Herbarium Alice Springs, Flora and Fauna Division, DEPWS.
- **Nick Ashburner**, Manager, Land Management, Central Land Council (CLC).
- **James Orr**, A/ Manager Crown Land Estate, Southern Region, Department of Infrastructure, Planning and Logistics (DIPL).

### Convenor

- **John Gaynor**, Regional Director Southern, DEPWS.

### Executive Officer

- **Michelle Franklin**, Senior Project Officer, Weed Management Branch, DEPWS.

### Apologies

- **Phil Cowan**, Director, Central Australian Parks, Parks and Wildlife Division, DEPWS.
- **Sarah Fairhead**, Executive Director Southern Region, DIPL.
- **Ben Kaethner**, Regional Land Management Coordinator, CLC.
- **Louis Elliott**, Botanist, NT Herbarium Darwin, Flora and Fauna Division, DEPWS.
- **Rene Bartolo**, Chief Remote Pilot and Director, Office of the Chief Remote Pilot, DCCEEW.
- **Andrew Jansen**, Science Operations Lead, Office of the Chief Remote Pilot, DCCEEW.
- **Steve van Bodegraven**, Solutions Architect, Office of the Chief Remote Pilot, DCCEEW.

### Minutes

- **Conni Warren**, On the Same Page Consulting.

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

## General Business

### Discussion and Amendments to Previous Minutes

- James Orr introduced as proxy for Sarah Fairhead.
- Discussion regarding minutes from the previous meeting, including amendments, which were discussed in session, and also via email out of session and accepted out of session.

**ACTION:** Minutes from meeting 3 to be finalised and accepted out of session and then published on the NTG web page.

- Discussion included the ‘general duties’ of a pastoral lessee, and the ‘conditions relating to land management’ of a pastoral lease, under the *Pastoral Land Act 1992*. These include the duty (a) to carry out the pastoral enterprise under the lease so as to prevent degradation of the land, and (c) within the limits of the lessee’s financial resources and available technical knowledge, to improve the condition of the land.(b) take all reasonable measures to conserve and protect features of environmental, cultural, heritage or ecological significance.
- The TWG considers it important to have a policy that guides the action resulting from a Weed Risk Assessment conducted by the NT Weed Risk Management Committee.

### Terms of Reference

- The amended Terms of Reference (version 1.1) were tabled and passed, noting the addition of an eighth TWG member to represent NT Government public land from the Department of Infrastructure, Planning and Logistics.

**ACTION:** Updated Terms of Reference to be finalised and published on the NTG website.

- The format of the final report from the TWG was discussed. The Convenor proposed that a primary recommendation be made regarding the legislative control of buffel grass, and then that this be backed up with additional recommendations to support the primary one. Additional recommendations may be the formation of a Weed Advisory Committee (WAC), or the funding of supporting research.

## Scope and Purpose

- The planned purpose of the meeting was discussed and it was agreed to change the focus.
- The purpose of meeting 4 was to define and communicate clear objectives of the TWG, establish a stance on legislative levers, acknowledging and recording any dissenting views, and develop a draft recommendation for the Minister about legislative levers. An additional objective was to initiate discussions on complementary measures to be recommended alongside the primary recommendation.
- The Convenor and members agreed that there were some matters still left to be explored, including a cost benefit analysis of the use and management of buffel grass, the use of drones, and further research into biological controls. Whilst these are important issues that still need exploration, this is either out of scope for the TWG, or it was more relevant to leave this for a future WAC.

## Objectives of the TWG recommendations

- The TWG discussed and drafted a list of agreed objectives that represent the desirable outcomes from the recommendations to be provided to the Minister.
- The agreed objectives were:

Objectives:
Keep buffel grass out of clean areas.
Protect sites of high ecological value.
Protect cultural values.
Fire protection around population centres and built assets.
Reduce spread via transport corridors and mining operations.
Stop intentional sowing and introduction of new varieties.
More strategic approach to management.
Don't decrease the value of the pastoral estate.
Minimise biodiversity loss in invaded areas through strategic management.
Determine what reasonable measures are to prevent spread.

- Other recommendations drafted during this conversation were:

Funding commitments to explore alternative management options.
Exploration of local native alternatives to using buffel grass.

Notably, during the discussion of objectives for recommendations, members raised other matters for consideration:

- Higher definition mapping isn't an objective, but should be included as a recommended measure to be used as a tool for a future WAC to use to explore and recommend specific zoned areas of declaration.
- Gamba grass was declared as a split Class A/B weed in 2008. Targeted action began on gamba grass in 2016, enforcing the requirements of the declaration as well as the Statutory Weed Management Plan for Gamba Grass. Following this, spread has been slowed down.
- Bushfires NT and NT Fire and Emergency Service prioritise the protection of people and property above all, there is a significant need to protect cultural and ecological assets for the wellbeing of people. For this reason, consideration should be given to equally prioritising areas with high value cultural or ecological assets when minimising impact.
- A funding commitment is important in order to explore every available avenue for alternative control and management options.
- If implementation of the recommendations made by the TWG lead to changes in how buffel grass is assessed on pastoral properties, it will be necessary for Industry, research agencies and government to explore local native alternatives for land improvement.

## Legislation options

- Once the objectives of the TWG recommendations were agreed upon, the list was reviewed, and suitable legislative options were listed for each objective. The legislation identified for each objective is as follows:

Objectives:	Existing legislation available:
Keep buffel grass out of clean areas.	WMA, PLA, EPBCA
Protect sites of high ecological value.	WMA, TPWCA, PLA
Protect cultural values.	NT ASSA, WMA, TPWCA, ALRA
Fire protection around population centres and built assets.	FEA, BFMA
Reduce spread via transport corridors and mining operations.	WMA, MMA, EPA
Stop intentional sowing and introduction of new varieties.	WMA
More strategic approach to management.	WMA, BFMA, FEA, PLA
Don't decrease the value of the pastoral estate.	PLA, WMA
Minimise biodiversity loss in invaded areas through strategic management.	WMA
Determine what reasonable measures are to prevent spread.	WMA, EPA
Key – <i>Aboriginal Land Rights Act (Northern Territory) 1976 (ALRA), Bushfires Management Act 2016 (BFMA), Environment Protection Act 2019 (EPA), Environment Protection and Biodiversity Conservation Act 1999 (EPBCA), Fire and Emergency Act 1996 (FEA), Mining Management Act 2001 (MMA), Northern Territory Aboriginal Sacred Sites Act 1989 (NT ASSA), Pastoral Land Act 1992 (PLA), Territory Parks and Wildlife Conservation Act 1976 (TPWCA), Weeds Management Act 2001 (WMA).</i>	

Notably, during the discussion of legislative options for enforcing the objectives, it was also discussed that:

- While cultural values are referred to in some of these legislative acts, the focus is generally on areas or sites, whereas the WMA could assist with a more nuanced management for cultural values protection.
- The report will make primary recommendations regarding legislative levers and then there will be additional recommendations on necessary processes such as establishing a WAC, or obtaining more granular mapping.
- A more strategic approach necessitates the use of multiple legislative levers to manage the impacts of buffel grass effectively. Some of the necessary levers listed above are already in place and only require action to fund and utilise. The *Weeds Management Act 2001* is not yet able to be used as indicated above, and would require that buffel grass be declared a weed in order to administer the available levers.
- A future WAC and the Pastoral Land Board (PLB) could be the vehicles to identify how not to decrease the value of pastoral estate.
- There were several recommendations for additional research. Additional work is required in DEPWS to prepare costing. The recommendations to the Minister will include the need for associated funding.

## Weed Classification options

- The group considered a declaration under the *Weeds Management Act 2001*, and discussed the available classification levels with respect to the earlier agreed objectives.
- It was discussed that the objectives include management strategies that will aid in prioritising environmental, cultural and economic assets for protection.
- The existing legislation was discussed and generally agreed not to be sufficient for the overall management of buffel grass in all circumstances, and that the additional support of a weed declaration would fill those gaps.
- While some members of the TWG would prefer to see buffel grass eradicated completely, it was agreed by all that this is not possible, and that strategic management for priority assets (cultural, environmental and built), and control or slowing of spread to new areas, is the best feasible outcome.
- The following classifications and declaration types were discussed:

Objectives:	Legislation available:	Weed declaration classification options:
Keep buffel grass out of clean areas.	WMA, PLA, EPBCA	<ul style="list-style-type: none"> <li>• Class A, or</li> <li>• Class B.</li> </ul>
Protect sites of high ecological value.	WMA, TPWCA, PLA	<ul style="list-style-type: none"> <li>• Class A, or</li> <li>• Class B.</li> </ul>
Protect cultural values.	NT ASSA, WMA, TPWCA, ALRA	<ul style="list-style-type: none"> <li>• Class A,</li> <li>• Class B, or</li> <li>• Class D.</li> </ul>
Fire protection around population centres and built assets.	FEA, BFMA	<ul style="list-style-type: none"> <li>• not required</li> </ul>
Reduce spread via transport corridors and mining operations.	WMA, MMA, EPA	<ul style="list-style-type: none"> <li>• Class B, or</li> <li>• Class D.</li> </ul>
Stop intentional sowing and introduction of new varieties.	WMA	<ul style="list-style-type: none"> <li>• Class D.</li> </ul>
More strategic approach to management.	WMA, BFMA, FEA, PLA	<ul style="list-style-type: none"> <li>• Zoned declaration.</li> </ul>
Don't decrease the value of the pastoral estate.	PLA, WMA	<ul style="list-style-type: none"> <li>• Class D,</li> <li>• Zoned declaration,</li> <li>• WAC, and</li> <li>• Statutory Weed Management Plan.</li> </ul>
Minimise biodiversity loss in invaded areas through strategic management.	WMA	<ul style="list-style-type: none"> <li>• Zoned declaration,</li> <li>• WAC, and</li> <li>• Statutory Weed Management Plan.</li> </ul>
Determine what reasonable measures are to prevent spread.	WMA, EPA	<ul style="list-style-type: none"> <li>• WAC, and</li> <li>• Statutory Weed Management Plan.</li> </ul>

- During this discussion the majority of members agreed that declaration was desirable and necessary, although one member expressed a dissenting view. The primary point of conversation was regarding land tenures, areas, and density zones, and which classification/s would be most suitable. All views will be considered and represented in the final report and recommendations.



- Concern was raised by members of the group regarding DIPL’s ability to comply with any declaration, and some members did not want to support a recommendation that goes beyond what is feasible. It was agreed that any declaration and subsequent weed management plan will consider what is reasonable or feasible for management.
- If a requirement was to be recommended for reducing or preventing spread, there was concern over what would be considered “reasonable” in terms of management to this effect. In cases where prevention or even reduction is achieved, there were questions on who or how it would be decided that the efforts made were considered “reasonable”.
- Discussion was held regarding the definition of a Class D weed, as this category has not yet been used and as such there are no examples to compare with. It was clarified that Class D may be applied to weeds that have lower impact or where the main method of spread is due to human activities. It was noted that this does not apply for buffel grass across most the NT.

## Logistics

- A letter from Arid Lands Environment Centre (ALEC) was tabled and provided to all members to consider out of session.

**ACTION:** Distribute electronic copy of ALEC submission to all members.

- Nick Ashburner tabled a document from the CLC passing a resolution supporting various impact statements, and calling for declaration.

**ACTION:** Distribute electronic copy of CLC resolution and supported statements to all members.

- Nicole Hayes informed the group that the Northern Territory Cattlemen’s Association (NTCA) has also drafted a policy on buffel grass, and that she will provide it for distribution.

**ACTION:** Distribute electronic copy of NTCA policy on buffel grass to all members.

- It was raised by the DIPL representative that DIPL has a perspective that should be presented for inclusion.

**ACTION:** Written representation of DIPL’s position to be sourced and distributed to all members.

## Meeting closed

- The meeting concluded at 1:37pm.

## Action List

Item	Due
1. Minutes from meeting 3 to be finalised and accepted out of session and then published on the NTG web page.	ASAP
2. Updated Terms of Reverence to be finalised and published on the NTG website.	ASAP
3. Distribute electronic copy of ALEC submission to all members.	ASAP
4. Distribute electronic copy of CLC resolution and supported statements to all members.	ASAP
5. Distribute electronic copy of NTCA policy on buffel grass to all members.	ASAP
6. Written representation of DIPL’s position to be sourced and distributed to all members.	ASAP

# Buffel Grass Technical Working Group Meetings 5 – Minutes

Will be supplied once finalised.