Weed Management Plan

Gamba Grass 2020-2030 (2024 Revision)











| Document title | Weed Management Plan Gamba Grass 2020 – 2030 (2024 Revision) | | |
|------------------------------|---|--|--|
| Contact details | Department of Environment, Parks and Water Security | | |
| Approved by | The Minister for Environment, Climate Change and Water Security | | |
| Date approved by Minister | 8 January 2024 | | |
| Date gazetted | 18 January 2024 | | |

Compiled by:

Snappy Gum Consulting and the Weed Management Branch on behalf of the:

Northern Territory Gamba Grass Weed Advisory Committee

Rangelands Division

Weed Management Branch
Department of Environment, Parks and Water Security
PO Box 496
Palmerston NT 0831

Phone 08 8999 4567 Email <u>weedinfo@nt.gov.au</u> Web <u>nt.gov.au/weeds</u>

© Northern Territory Government, 2024

ISBN: 978-1-74350-260-0



You are licensed to use this publication on the terms and conditions set out in: Creative Commons Attribution 4.0 International Public Licence (CC BY 4.0) at: https://creativecommons.org/licenses/by/4.0/legalcode.

If you do not agree to the terms and conditions you must not use this publication. You are free to copy, communicate and adapt the licensed material, provided that you abide by the licence terms (including Attribution) and attribute the licensed material using the statement: Supplied by the Department of Environment, Parks and Water Security. © Northern Territory Government.

Recommended citation: Northern Territory Government (2024). Weed Management Plan for Gamba Grass 2020 – 2030 (2024 Revision), Department of Environment, Parks and Water Security, Darwin.

This plan can be downloaded from nt.gov.au/gamba

Acknowledgment

The Weed Management Branch acknowledges the time invested by the Gamba Grass Weed Advisory Committee, land managers, landholders and all key stakeholders to inform and guide the development of this revised plan.

Photo credits from cover page: Inspecting gamba grass (Weed Management Branch), Gamba grass spraying (Weed Management Branch), Aerial view of gamba grass fire (David Muller), Gamba grass fire (Natalie Rossiter-Rachor).

Contents

| 1. Overview | 5 |
|---|----|
| 1.1. Introduction | 5 |
| 1.2. Legislative status of gamba grass | 5 |
| 1.3. Distribution in Northern Territory | 7 |
| 2. Aim, goals and objectives | 9 |
| 2.1. Aim | 9 |
| 2.2. Goals and Objectives | 9 |
| 3. Responsibilities of all persons | 10 |
| 3.1. General duties by all persons | 10 |
| 3.2. Requirements under the plan for all persons | 10 |
| 4. Responsibilities of owner or occupier of land | 11 |
| 4.1. General duties for owner or occupier of land | 11 |
| 4.2. Requirements for land owners and occupiers by parcel size and use (updated in 2024 revision) | 12 |
| 5. Further Resources | 14 |
| 6. Actions, monitoring and evaluation | 15 |
| 7. References | 21 |
| Appendix A – Legal obligations and penalties for non-compliance | 22 |
| Roles and responsibilities | 22 |
| Penalties for offences under the Act | 22 |
| Permits | 22 |
| Appendix B - Summary of changes made during 2024 review | 23 |

| Glossary | | | | |
|---|--|--|--|--|
| Active management | The control and monitoring of a weed infestation to meet strategic goals. | | | |
| Active management phase | The phase of a management response that involves active control and survey for the target weed. When no plants are detected for at least 12 months, the response moves into the monitoring phase. | | | |
| Containment | The aim of preventing or reducing the spread of invasive species, e.g. by preventing invasions into new areas and eradicating any species that are found outside a defined area or beyond a defined line (Panetta 2016). | | | |
| To implement actions that reduce the impacts of a weed including physical, me chemical and biological control. Fire is also a useful management tool that can reduce the impact of weeds. | | | | |
| Declared weed | A plant declared to be a weed under section 7 of the Weeds Management Act 2001. | | | |
| Destroy | End the existence of a weed plant or weed infestation so no regrowth occurs. | | | |
| Easement | A right annexed to land (the dominant land) to use other land (the servient land) in a particular manner or to prevent that other land from being used in a particular manner but does not include a right to take the soil or produce of other land (as defined by the Law of Property Act 2000). | | | |
| Eradicated | A weed infestation can be considered eradicated when there is sufficient evidence that there are no remaining live plants or remaining propagules (e.g. seed). | | | |
| Eradication | The elimination of every single individual (including seeds and other propagules) of a species from a defined area in which recolonisation is unlikely to occur (Panetta 2016). | | | |
| The status of a weed control program for weed infestations that should be target eradication status Eradication status | | | | |
| Gamba grass free buffer | An area free of gamba grass. | | | |
| Mature plant | A plant that has evidence of flowering or seeding; or is of sufficient size to be judged capable of flowering or seeding. | | | |
| Monitoring phase | The phase of a management response that involves searching for any regrowth or seedlings after all plants have been controlled. The monitoring phase commences when no regrowth or new plants have been detected in the area for at least 12 months (Panetta 2007). The monitoring phase continues for at least 12 months and for the life of the seed bank. | | | |
| "Owner" refers to the holder of an estate in fee simple, while "occupier" must ref someone having exclusive possession, occupation, use or enjoyment of the land. Example where an entity would not be an owner or occupier: the holder of an ea would not be classed as an owner or occupier as they do not have exclusive possoccupation, use or enjoyment of the land. | | | | |
| Outlier | Any weed infestation in the Class A zone and / or any isolated plants at significant distance from another infestation in the Class B zone. | | | |
| Parcel compliance score | A score that combines presence, density and spread risk of gamba grass for a land parcel. An example of the parcel compliance score is available at nt.gov.au/gamba . | | | |
| Regrowth | The regeneration of established plants following disturbance or control. | | | |
| Road | See section 5(1) of the Control of Roads Act 1953 and section 270 of the Local Government Act 2019. | | | |
| Stockpile | An accumulation of materials such as dirt or gravel. | | | |
| Track | Refers to the main access into a property. | | | |
| Consists of: • A road as defined by the Control of Roads Act 1953 and the adjoining road (area between the boundary of another property and the road) or • A road defined by the Local Government Act 2019 and the adjoining road • A railway corridor as defined by the Australasia Railway (Special Provision 1999. | | | | |



1. Overview

1.1. Introduction

This weed management plan forms part of a strategic approach to gamba grass (*Andropogon gayanus*) management in the Northern Territory with the aim being to reduce the risk and damage caused by gamba grass, and the destructive fires it fuels, to the natural environment, life, property and infrastructure.

Weed management plans are statutory documents designated under section 10 of the Weeds Management Act 2001 (the Act) that can be developed for declared weeds in the Northern Territory. This plan establishes the legal requirements and management actions to be undertaken by all owners and occupiers of land and all persons in the Northern Territory. Conducting land management practices in accordance with this plan will secure compliance with the requirements of the Act.

The Weed Management Plan Gamba Grass 2020 – 2030 was developed in 2020 by the Gamba Grass Weed Advisory Committee, convened under the Act, and the Weed Management Branch through a collaborative approach. The process involved consideration of lessons learned from implementation of the first 10 year plan, key stakeholder and community perspectives, and knowledge regarding distribution and management status of gamba grass, alongside the experience and expertise of committee members.

Goals and objectives, detailed in Section 2, have been determined to deliver the aim of this plan. Management requirements for all persons, land owners and occupiers are detailed in Sections 3 and 4, which aim to achieve the overall goals of the plan. Strategic actions for implementation by the Northern Territory Government in collaboration with relevant community and industry organisations are detailed in Section 6. Overall roles, responsibilities and penalties for non-compliance are outlined in Appendix A.

This 2024 review constitutes the first review of this plan. The review was undertaken again by the Weed Management Branch in consultation with the Gamba Grass Weed Advisory Committee. Public comment on the review was sought in an April – May 2023 Have your Say Survey. Survey results can be found online, where permission was provided, at:

https://depws.nt.gov.au/__data/assets/pdf_file/0010/1287802/gamba-grass-survey2023.pdf

A summary of all changes made through this review can be found in Appendix B of this plan.

Annual monitoring and reporting against the measures included in Section 6 will continue to occur to track performance against the plan. This will improve the likelihood of success by providing the opportunity to identify and address challenges so that improvements can be implemented in a timely manner. The Gamba Grass Weed Advisory Committee will continue to have an ongoing role in monitoring progress of this plan to ensure independent oversight of its delivery.

This plan is not intended as a technical guide for the management of gamba grass. Section 5 of this document includes a list of publications by the Weed Management Branch that provides technical guidance and other useful information.

1.2. Legislative status of gamba grass

Gamba grass has been assessed as a very high risk weed in the Northern Territory using the <u>NT Weed Risk Management System</u>, due to its impact (and potential for further impact) on the Northern Territory's natural environment, economy and cultural values.

It is declared under the Act as a Class A (to be eradicated) and Class B (growth and spread to be controlled) weed in different zones. The different zones represent a defensible balance between the prioritised requirement to eradicate high risk infestations located on the periphery of the range of the species, where feasibility of eradication remains high (Class A), and the lower feasibility of eradication associated with



large established infestations (Class B). Figure 1 shows the delineation of the Class A and Class B zones (declared in gazettal notice No. G14 9 April 2014).

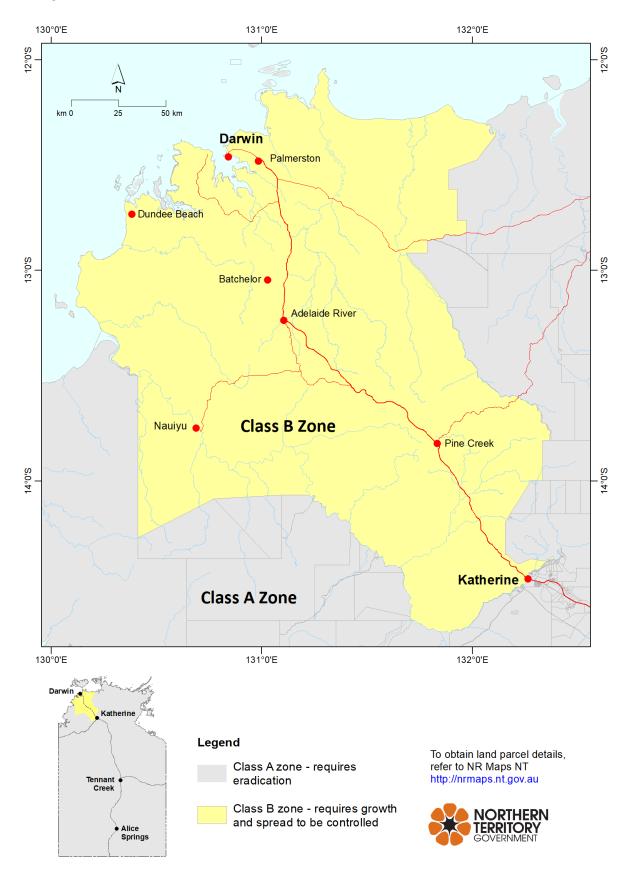


Figure 1 Gamba grass management zones A and B



1.3. Distribution in Northern Territory

Gamba grass covers approximately 532,900 hectares¹ in the Darwin and Katherine regions of the Northern Territory. The largest and most dense infestations are located throughout the Darwin region, in the Class B management zone. Infestations in the Katherine region are smaller and are considered eradicable. Figure 2 shows a broad overview of the known distribution of gamba grass in the Northern Territory.

According to the Northern Territory Weeds Strategy 2021-2026, gamba grass is a priority weed for strategic control (including eradication of outliers) in both the Darwin and Katherine weed management regions. It is of no concern at present in either Tennant Creek or Alice Springs.

Current and detailed distribution data can be obtained online by visiting the Northern Territory Government's NR Maps, though the NTG Open Data Portal, or by submitting a request to the Weed Management Branch.

There are knowledge gaps regarding the distribution of gamba grass in both the Class A and Class B zones. A priority of this plan is to address this with development and implementation of a mapping and monitoring plan and ensuring community contribution of gamba grass distribution data. The information obtained through implementation of this plan will enable a more strategic approach to gamba grass management.

¹ 1.5 million hectares was previously reported as the approximate area covered by gamba grass in the NT. This area can be attributed back to 2008 and the calculation method is unknown. Henceforth the approximate area covered by gamba grass in the NT will be calculated by intersecting known gamba grass points with a 1km grid and if the 1km grid has gamba grass that 1km grid will be considered to have gamba grass cover.



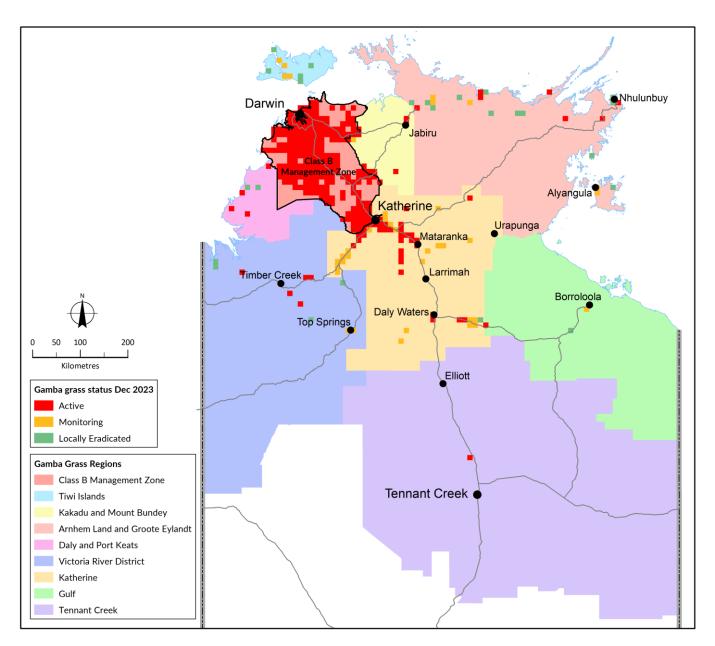


Figure 2 Gamba grass distribution across the Northern Territory as of 2023 using 0.1 degree squared grids (~10 x 10 km). The 10km grid status in the Class A zone is shown across the gamba grass eradication regions and is based on the most conservative value (i.e. active is more conservative than monitoring) of all the 1 ha Gamba Grass Management Units within each 10 km grid. In the Class B zone a 10km grid that contains gamba grass is marked as active as gamba grass eradication is not being tracked across this zone (Weed Management Branch September 2023)

2. Aim, goals and objectives

2.1. Aim

To reduce the risk and damage caused by gamba grass, and the destructive fires it fuels to the natural environment, life, property and infrastructure.

2.2. Goals and Objectives

Goal 1 Eradicate gamba grass from the Class A zone

Objectives:

- 1a. Understand the distribution of gamba grass in the Class A zone.
- 1b. By July 2023, all gamba grass in the Class A zone is under an active eradication program and all gamba grass plants have been destroyed (unless under permit).
- 1c. By July 2026, all gamba grass in the Class A zone is eradicated (unless under permit).
- 1d. By July 2026, a review of the permit system pertaining to gamba grass is completed.
- 1e. Review the Class A and B zone boundaries to improve the protection of areas in the Class B management zone that are free of gamba grass.

Goal 2 Contain and control gamba grass by actively managing infestations across the Class B zone and preventing spread into new areas

Objectives:

- 2a. Reduce seed production.
- 2b. Implement weed hygiene measures to reduce gamba seed spread.
- 2c. Reduce gamba grass outliers at a land parcel and landscape scale.
- 2d. Prevent gamba grass spreading into clean areas.
- 2e. Reduce gamba grass abundance and density in the Class B zone.
- 2f. Reduce gamba grass presence around landholder infrastructure.
- 2g. Understand the distribution of gamba grass in the Class B zone.

Goal 3 Protect priority environmental and cultural assets from the impacts of gamba grass

Objectives:

3a. Identify key environmental and cultural assets at risk of being impacted by gamba grass and incorporate into relevant Weed Management Branch, stakeholder and land manager regional plans, strategies and compliance programs.

Goal 4 Increase community capacity and willingness to participate in gamba grass management

Objectives:

- 4a. Engage with the community and obtain a high level of public support for gamba grass management action resulting in an increase in voluntary compliance with gamba grass management requirements.
- 4b. Ensure adequate information and knowledge on gamba grass management is available and up to date and translates into improved management approaches.

Goal 5 Implement transparent and accountable compliance, monitoring and reporting processes

Objectives:

- 5a. Deliver a transparent and risk-based compliance program.
- 5b. Collaborate with key stakeholders to undertake regular monitoring and reporting of performance against the Weed Management Plan for Gamba Grass 2020 2030.
- 5c. Ensure ongoing independent oversight of delivery of the Weed Management Plan for Gamba Grass 2020 2030.



3. Responsibilities of all persons

3.1. General duties by all persons

General duties under Section 9E of the Act that apply to all persons are outlined as follows:

A person has a duty to:

- Comply with any weed management plan for a declared weed, and
- Ensure that, if the person uses a declared weed, the declared weed is used in accordance with any classification of the declared weed under the Act Sections 7(4)(b), (c) or (d).

A person must not do any of the following²:

- Bring, or be responsible for, bringing a declared weed into the Northern Territory.
- Propagate or scatter a declared weed.
- Sell or offer to sell a declared weed or any thing that contains or carries a declared weed.
- Purchase or offer to purchase a declared weed or any thing that contains or carries a declared weed.
- Hire or offer to hire to another person any equipment, device or thing that contains or carries a declared weed.
- Hire or request to hire from another person any equipment, device or thing that contains a declared weed.
- Store, grow or use a declared weed or any thing that contains or carries a declared weed.
- Transport or carry on his or her person a declared weed or any thing that contains or carries a
 declared weed.

3.2. Requirements under the plan for all persons

In addition to the above, the following actions must be undertaken to secure compliance with this plan:

- Take reasonable action to ensure weeds are not spread.
- Do not drive machinery or vehicles through seeding weeds.
- Implement vehicle hygiene measures as required to ensure weeds are not spread.
- If carrying out activities with a high risk of weed spread prepare a weed spread prevention plan
 in accordance with <u>Preventing Weed Spread is Everybody's Business</u> (Northern Territory
 Government 2015).

While land owners or occupiers are responsible for managing weeds on easements that occur on their land, any person or entity conducting activities of any description within an easement must comply with the responsibilities listed above.



² Except in accordance with a permit.

4. Responsibilities of owner or occupier of land

4.1. General duties for owner or occupier of land

General duties included under the Act for an owner or occupier of land in accordance with Section 9K(1) are as follows:

An owner or occupier of land has a duty to take all reasonable measures to prevent the spread of a declared weed on the land. Reasonable measures include:

- Destroying all outlier gamba grass plants and infestations as a priority.
- Ensuring that control measures used to destroy gamba grass are effective.
- Not allowing gamba grass to establish on stockpiles of any description.
- Preparing and implementing a <u>property weed management plan</u> on request.
- Recording gamba grass survey, control and distribution information and providing it to the Weed Management Branch upon request.

Note that burning, grading, slashing and grazing management methods do not destroy gamba grass. These methods can be useful for managing gamba grass fuel loads and minimising seed production. To destroy gamba grass these methods must be implemented in conjunction with other control methods (e.g. herbicide application, hand pulling). Any burning conducted must be done in accordance with any required permits.

An owner or occupier of land has a duty to take all reasonable measures to prevent a declared weed on the land spreading to other land. Reasonable measures include:

- Not allow gamba grass to spread into clean areas or adjoining land.
- Implement all gamba grass control as required by this plan prior to seeding.
- Not use gamba grass contaminated soil stockpiles as clean fill or topsoil.
- Prepare a weed spread prevention plan in accordance with <u>Preventing Weed Spread is Everybody's Business</u> (Northern Territory Government 2015).
- Destroy gamba grass in areas to be disturbed by machinery, vehicles or any other human means prior to flowering and seeding.
- Not move any machinery or transport materials contaminated with gamba grass seed off site or into clean areas.

If the owner or occupier of the land becomes aware of the presence on the land of a declared weed that was not previously present on the land – within 14 days after first becoming aware of the presence on the land of the declared weed, notify an officer of the presence of the declared weed.

All persons and organisations with gamba grass on land they own or occupy must comply with the minimum management requirements in Tables 1 to 6 to achieve compliance with this plan³. All actions in Tables 1 to 6 are to be implemented immediately from the gazettal date of 18 January 2024 unless otherwise stated.

³ Refer to Appendix A for a full list of roles and responsibilities that apply to land owners and occupiers and land managers including the Northern Territory Government, Local Government and the Australian Government.



4.2. Requirements for land owners and occupiers by parcel size and use (updated in 2024 revision)

Adjoining land parcels owned by the same entity may be treated as one parcel for the purpose of determining the required management actions. This is to provide an achievable framework that ensures resources are strategically applied across multiple parcels in this situation.

| Table 1 | Class A Zone – Eradication |
|---------|---|
| 1.1 | All gamba grass plants are destroyed. ^{4,5} |
| 1.2 | Detect and destroy all gamba grass regrowth prior to seeding (July 2023 – July 2025). |
| 1.3 | Monitor and destroy regrowth and any new gamba grass introductions annually. |

| Table 2 | Class B Zone – Land parcels (<3 Ha) Control growth and spread | | | |
|---------|---|--|--|--|
| 2.1 | All gamba grass plants are destroyed. ^{5,6} | | | |
| 2.2 | Detect and destroy all gamba grass regrowth prior to seeding (July 2023 – July 2025). | | | |
| 2.3 | Monitor and destroy regrowth and any new gamba grass introductions annually. | | | |

| Table 3 | Class B Zone – Land parcels (3 – 140 Ha) Control growth and spread | | | | |
|---------|---|--|--|--|--|
| 3.1 | Establish and maintain a gamba grass free buffer of 15m in width along the inside of the land parcel boundaries, around infrastructure ⁷ , and on both sides of tracks and roads. The buffer must be established by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |
| 3.2 | Where the Class B zone adjoins the Class A zone boundary, it is required that a gamba grass free buffer of 500m is established and maintained on the Class B zone side of the boundary, by January 2025. This buffer must be established and maintained by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |
| 3.3 | Undertake annual gamba grass control activities and weed spread prevention activities to ensure gamba grass free areas remain gamba grass free. | | | | |
| 3.4 | Undertake annual gamba grass control activities so gamba grass is reduced. | | | | |

| Table 4 | Class B Zone – Land parcels (>140 Ha ⁸) Control growth and spread | | | | |
|---------|---|--|--|--|--|
| 4.1 | Establish and maintain a gamba grass free buffer of 15m in width along the inside of the land parcel boundaries, around infrastructure ⁷ , and on both sides of tracks and roads. The buffer must be established by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |
| 4.2 | Where the Class B zone adjoins the Class A zone boundary, it is required that a gamba grass free buffer of 500m is established and maintained on the Class B zone side of the boundary, by January 2025. This buffer must be established and maintained by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |

⁴ Unless under permit. Previously, applications for a permit to use a declared weed have been considered by the Minister for the use of gamba grass for grazing purposes in the Class A zone. With exception of areas under permit upon gazettal of this plan, no new permit applications will be considered.

⁸ This includes all land parcels greater than 140 Ha which may include pastoral land parcels, Aboriginal Land or national parks.



⁵ Reference to 'by July 2023' has been removed as this date has passed and this requirement has come into effect.

⁶ This requirement reflects the increased risk to property and life associated with managing fires on small land parcels.

⁷ Infrastructure refers to landholders' houses, sheds, bores, fences (except internal fencing).

| 4.3 | Undertake annual control activities and weed spread prevention activities to ensure gamba |
|-----|---|
| | grass free areas remain gamba grass free. |

| Table 5 | Hay Industry |
|---------|---|
| 5.1 | Hay production areas producing hay destined for sale or transport, must be free of gamba grass. |
| 5.2 | Do not sell hay containing gamba grass, or transport hay containing gamba grass off the land parcel ⁹ on which it was produced. If transporting hay within a property, where the land parcel straddles a road the vehicle must be clean prior to moving on the road. |
| 5.3 | Gamba grass cut for use on the land parcel, must be cut prior to flowering and seeding. |

| Table 6 | Transport Corridors ¹⁰ | | | | |
|---------|--|--|--|--|--|
| 6.1 | For all transport corridors, establish and maintain a gamba grass free buffer of 15m in width on both sides of tracks, railway lines and roads. This buffer must be established by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |
| 6.2 | Where the Class B zone adjoins the Class A zone boundary, it is required that a gamba free buffer of 500m is established and maintained on the Class B zone side of the boundary. This buffer must be established and maintained by chemical, mechanical or physical means, and must be done prior to seeding each year. | | | | |
| 6.3 | For all transport corridors in the Class A zone: all gamba grass plants are destroyed ⁵ . | | | | |
| 6.4 | For all transport corridors in the Class A zone: detect and destroy all gamba grass regrowth prior to seeding (July 2023 – July 2025). | | | | |
| 6.5 | For all transport corridors in the Class A zone: monitor and destroy regrowth and any new gamba grass introductions annually (after July 2025). | | | | |



As identified by the parcel location code and lot number.
 For transport corridors Table 6 is applicable. Tables 1 to 5 do not apply.

5. Further Resources

The Weed Management Branch have developed a number of resources to assist with the management of gamba grass, preventing weed spread, developing property weed management plans and outlining weed data collection practices. These resources are summarised below.

- <u>Gamba grass fact sheet</u> Provides information on gamba grass identification, impacts, habitat, distribution and management.
- Weed management guide: gamba grass (Andropogon gayanus) Provides advice on how to manage gamba grass on your land parcel.
- Northern Territory weed management handbook Developed to provide detailed information about weed control in the Northern Territory. Weed control option tables are included in this handbook that detail herbicide recommendations and optimum treatment times for most problem weeds. Other control methods, which can assist in weed management, have also been described.
- <u>Preventing weed spread is everybody's business</u> Describes simple spread prevention techniques
 that are able to be applied by all Territorians, including land managers and business operators, with a
 view to protecting our valuable and diverse resources from the impacts of weeds.
- Regional weeds strategies In the Northern Territory, there are regional strategies for the Darwin, Katherine, Tennant Creek and Alice Springs weed management regions. Together, they comprise the Northern Territory Weeds Strategy.
 - Regional strategies identify significant weeds and weed issues in a region. They are developed in consultation with key stakeholders including regional weed reference groups and are informed by outputs from the Northern Territory Weed Risk Management System.
- <u>Weed data collection manual</u> Describes how to, and what information to collect when undertaking weed mapping and surveys.
- <u>Weed data collection a field guide for collecting weed data in the Northern Territory</u> Provides a step by step guide about the weed data collection process.
- Weed ID deck Weed identification flip-book. Contains photos and written descriptions to assist with identification.
- <u>Planning for better weed management</u> This is a guide on how to plan for efficient and cost effective weed control on your land parcel.

Copies of these resources can be obtained online at www.nt.gov.au or by contacting the Weed Management Branch via email: weedinfo@nt.gov.au or phone: 08 8999 4567.



6. Actions, monitoring and evaluation

The Northern Territory Government recognises the significance of gamba grass impacts and the associated management complexities. Achieving the aim, goals and objectives of this plan will require action at a range of levels, involving a great deal of effort, commitment and investment by land managers, the Northern Territory Government, community and industry.

A number of strategic actions, additional to the actions listed in Sections 3 and 4 which relate to individuals and land owners and occupiers, have been identified to support delivery of the plan. These strategic actions are detailed in tables 7 to 11 below as they relate to each goal.

These tables also detail the indicators and measures that will be reported on annually to assess performance against the plan, to determine whether the stipulated actions are contributing towards the identified outcomes at a Territory level. This annual reporting will be made publicly available.

The Weed Management Branch, in conjunction with the Gamba Grass Weed Advisory Committee, will be responsible for compiling and reviewing the annual reports and will monitor the results to determine progress against the objectives, ensure ongoing relevancy and community support, and to apply an adaptive approach to changing conditions.

This plan has been drafted using the best information available at the time of writing. Should new information become available which should be included in, or influence the structure and content of this plan, it may be incorporated as a revision.



| Objectives | Strategic actions | Who | Performance Indicators | Performance Measures |
|---|---|---|--|---|
| 1a. Understand the distribution of gamba grass in the Class A zone. | By July 2021, design a mapping and monitoring program for the Class A zone. By July 2021, commence the mapping program in the Class A zone. By July 2022, complete the mapping program and continue monitoring in the Class A zone. | Weed Management Branch (WMB) WMB / land owner / occupiers WMB/ land owner / occupiers | By July 2022, the extent of gamba grass has been assessed for land parcels identified in the monitoring and mapping program. | A generalised map of distribution or gamba grass presence confidence is publicly available. Annual measurement of gamba grass in hectares using available spatial data and eradication status information. |
| 1b. By July 2023, all gamba grass in the Class A zone is under an active eradication program and all gamba grass plants have been destroyed (unless under permit) 1c. By July 2026, all gamba grass in the Class A zone is eradicated (unless under permit). | Individuals, land owners and occupiers implement required actions as per Section 4. Assess eradication status for land parcels. | Land owners and occupiers WMB | By July 2023, all known land parcels with gamba grass in the Class A zone are classified as b) active management. By July 2025, all known land parcels with gamba grass in the Class A zone are classified as c) monitoring phase. By July 2026, all known land parcels with gamba grass in the Class A zone are classified as d) eradicated 11. | A register is maintained by WMB of all known land parcels with gamba grass in the Class A zone according to their current eradication status: a) unmanaged b) active management c) monitoring phase d) eradicated Summary data of a, b, c and d is produced. Annual summary data produced showing progress toward eradication. |
| 1d. By July 2026, a review of the permit system pertaining to gamba grass is completed. | Existing permits that allow grazing of gamba grass in the Class A zone are reassessed to ensure they are appropriate. | WMB Gamba Grass Weed Advisory Committee (WAC) | Review of permit system is completed as it pertains to gamba grass. | Annual reporting on gamba grass grazing permit conditions and compliance. Outcomes of the July 2026 review are made publicly available. |
| 1e. Review the Class A and B zone boundaries to improve the protection of areas in the Class B management zone that are free of gamba grass. | By July 2026, review the Class A and Class B zones to ensure the Class A zone captures areas that are free of gamba grass and where eradication is considered feasible. | WMB WAC | By July 2026, revised Class A and B zones are declared if recommended by the review process. | Gamba grass management zones review discussion paper is produced through consultation with relevant stakeholders, including the WAC. Updated Class A and B zone map is produced if zones are amended. |



 $^{^{11}}$ For more information on active management, monitoring phase, and eradication status, see glossary.

| Table 8. Goal 2 – Contain and control gamba grass by actively managing infestations across the Class B zone and preventing spread into new areas | | | | | |
|--|---|---|---|--|--|
| Objectives | Strategic actions | Who | Performance Indicators | Performance Measures | |
| 2a. Reduce seed production. | Land owners, occupiers and all users | Land owners, occupiers and all users of land | An annual compliance program is developed and implemented to assess compliance with this plan and compliance action is taken against properties not complying. | Proportion of assessed land parcels that: | |
| 2b. Implement weed hygiene measures to reduce gamba grass seed spread. | of land implement required actions as per Sections 3 and 4. | | | a) Are already compliant at time of initial assessment and no follow up action is required.b) Voluntarily meet management requirements after being informed of non- | |
| 2c. Reduce gamba grass outliers at a land parcel and landscape scale. | | | | compliance. c) Had compliance action taken due to non-compliance. | |
| 2d. Prevent gamba grass spreading into clean areas. | | | | Annual summary of a, b and c produced including the total number and area of parcels assessed as a proportion of the area of the Class B management zone. | |
| 2e. Reduce gamba grass abundance and density in the Class B zone. | | | | | |
| 2f. Reduce gamba grass presence around landholder infrastructure. | | By July 2024 and annually afterwards there is an improvement in gamba grass management as evidenced by an improvement in parcel compliance score. | Proportion of land parcels that have had multiple year compliance assessments and: a) Compliance score has improved indicating reduced gamba density. b) Compliance score is unchanged indicating no reduction in gamba density. c) Compliance score has worsened indicating increased gamba density. Annual summary of a, b, and c produced. | | |
| | | | Reduction in area affected by gamba grass in target areas. | Gamba grass presence measured annually (1km grid map showing the area affected by gamba grass). | |
| 2g. Understand the distribution of | The WMB are to undertake an annual assessment of land impacted by gamba grass. A mapping and monitoring program is developed for the Class B zone. | WMB | Increased understanding of priority areas for future mapping in the Class B zone. | Aerial survey of gamba grass within the Class B zone (pending funding). | |
| gamba grass in the Class B zone. | | | | Key areas of gamba grass improvement are reported on annually including metrics for the following: | |
| | | | | a) area sprayedb) the number of properties sprayedc) tenure types. | |
| | | | | Categorised list of priority areas that require gamba grass mapping is produced. | |



| Table 9. Goal 3 - Protect priority environmental and cultural assets from the impacts of gamba grass | | | | | | | | |
|---|---|--|---|---|--|--|--|--|
| Objectives | Strategic actions | Who | Performance Indicators | Performance Measures | | | | |
| 3a. Identify key environmental and cultural assets ¹² at risk of being impacted by gamba grass and incorporate into relevant Weed Management Branch, stakeholder and land manager regional plans, strategies and | By December 2022, key environmental and cultural assets ¹² at risk of being impacted by gamba grass have been identified with stakeholder input. | cultural Non- Government grass Organisations developed of key environmental and cultural assets ¹² . | By January 2023, a list of priority assets identified is made publicly available (with exclusion of certain sacred sites if necessary). | | | | | |
| compliance programs. | Identified key environmental and cultural assets ¹² have been prioritised in WMB and stakeholder planning processes. | WMB and landowners and occupiers with environmental and cultural assets | Key environmental and cultural assets ¹² are prioritised in landholder management programs including regional plans. | An annual summary is produced to demonstrate progress towards protection of key environmental and cultural assets ¹² . An annual map is produced with gamba grass overlayed across key environmental and cultural assets ¹² for target locations ¹³ . | | | | |

¹² Environmental and cultural assets as outlined in the WMB Regional Weed Management Strategies.

¹³ This performance measure requires stakeholders to be working towards collecting data (e.g. presence, absence and treatment) so more informed maps can be produced over time.



| Objectives | Strategic Actions | Who | Performance Indicators | Performance Measures |
|---|---|--|--|---|
| community and obtain a high level of public support for gamba grass management action resulting in an increase in voluntary compliance with gamba grass | By July 2021, develop a communications plan to raise awareness of gamba grass management requirements and available support. | WMB | Public knowledge of gamba grass impacts and management requirements has increased. | Delivery of the communications plan, including participation in public events. |
| | Engage with the community. | | Changes in active management and voluntary compliance levels. | The number of people participating in the Gamba Action Program has increased. |
| | Education and awareness activities are implemented to encourage compliant behaviours. | | | Annual review and update of communications plan. Annual summary data produced as per Goals 1 to 3. |
| | By July 2023, complete a social marketing study (subject to funding) to identify community perceptions, needs and barriers regarding gamba grass management. | WAC lead in conjunction with Non- Government Organisations | Better understand community perceptions, needs and barriers regarding gamba grass management. | Development and completion of the social marketing study by 2023. Post study completion, and delivery of strategies that incorporate study outcomes to increase uptake of gamba grass management in the community. |
| | Improve landholder capacity for reporting gamba grass points in | WMB | Public reporting to WMB on gamba infestations in the Class A zone. | Uptake of NT WeedMate. |
| | the Class A zone. | | | Presence / absence of gamba grass in the Class A zone is being reported to the WMB for a) all historical gamba grass points; and b) new sightings. |
| | Development of an efficient tool (subject to funding) to encourage public reporting of gamba grass sightings and management effort. | WAC lead in conjunction with Non- | Public reporting of problem gamba grass. | The number of reports being made of problem gamba grass via the gamba reporting tool at nt.gov.au/gamba |
| | Promote the report gamba tool to encourage public reporting of Organisatio | | | |
| | Establish and support cross tenure working groups to ensure coordinated management of gamba grass across different land tenures. | WMB | An increase in coordinated management effort. | Promote active working groups achieving effective gamba grass management across tenures. |
| 4b. Ensure adequate information and knowledge on gamba grass management is | Research is undertaken that supports improved gamba grass management outcomes by addressing identified research gaps. | WMB Research partners | The Gamba WAC reviews annually key knowledge gaps that need to be addressed to improve gamba grass management outcomes. Feedback to be sought annually to inform knowledge gaps. Land manager awareness of improved management approaches the second content of the se | Key knowledge gaps are reported on annually including: a) further research or work needed to address these knowledge gaps, and b) any progress being made to address these knowledge gaps. |
| available and up to date, which | | WAC | | |
| translates into improved management approaches. | Promote research activities and updated management recommendations. | WMB and Research partners | Land manager awareness of improved management approaches | Research outcomes that can improve gamba grass management outcomes are |
| | | | | a) made available to the public; and b) reported on annually. |
| | | | | Integration of research outcomes into core business activities. |
| | Delivery of gamba grass forums with a focus on celebrating gamba grass successes and educating the community / land mangers on how to manage gamba grass and identifying other needs. | WAC in conjunction with relevant stakeholders | Capacity to manage gamba grass effectively has increased. | Delivery of gamba grass forums (every 2 to 3 years) to celebrate gamba grass successes, provide education and identify needs. |
| | Collaborate with other jurisdictions: a) to identify funding options for production of a National Best Practice Gamba Grass Manual by December 2022. b) On the production of a National Best Practice Gamba Grass Manual by early 2024. | WMB | Pathway is identified to produce National Gamba Grass Best Practice Manual. Collaborate with other jurisdictions on the production of the National Best Practice Gamba Grass Manual by early 2024. | Progress is made towards development of National Gamba Grass Best Practice Manual. Delivery of National Best Practice Gamba Grass Manual by early 2024. |



| Objectives | Strategic actions | Who | Performance Indicators | Performance Measures |
|---|--|------------|--|--|
| 5a. Deliver a transparent and risk- based compliance program. | A risk-based compliance program is developed. | WMB | Responsiveness to public enquiries. | Proportion of public enquiries responded to regarding the compliance process. |
| | The compliance program is promoted to the community. The compliance program is implemented annually. | | Public awareness of the parcel compliance rating system. | Number of online downloads of the parcel compliance rating system, annually. |
| | | | Application of the parcel compliance rating system. | Annual summary of outcomes as per Goal 1 - 3. |
| 5b. Collaborate with key stakeholders to undertake regular monitoring and reporting of performance against the Weed Management Plan for Gamba Grass 2020 – 2030. | By 30 September each year, deliver an annual report which addresses all performance indicators. | WMB WAC | Regular, transparent, and meaningful reporting that is effectively promoted to the public. | Public release of an annual report reviewed by the WAC that addresses performance indicators and measures within this plan. Annual online feedback undertaken to inform annual report. |
| | Effectively communicate key outcomes of the annual report to the community. | WMB | Community awareness. | Number of mechanisms used to promote the key outcomes of the annual report. |
| 5c. Ensure ongoing independent oversight of delivery of the Weed Management Plan for Gamba Grass 2020 – 2030. | Ongoing collaboration with the WAC regarding implementation of this plan. | WMB | Retention of the WAC. | WAC are communicating with their represented stakeholders on performance of the Weed Management Plan for Gamba Grass 2020 – 2030 and acting on feedback received from stakeholders. |



7. References

Northern Territory Government (2015). *Preventing weed spread is everybody's business.*, Darwin, NT. Available at https://denr.nt.gov.au/__data/assets/pdf_file/0011/257987/preventing-weed-spread.pdf.

Panetta, F.D (2007). Evaluation of weed eradication programs: containment and extirpation. *Diversity and Distributions*, 13(1): 33-41. https://doi.org/10.1111/j.1472-4642.2006.00294.x

Panetta, F. D (2016). Environmental weed risk screen for Victoria: background and development. A report prepared for the Department of Environment, Land, Water and Planning, Vic. https://www.environment.vic.gov.au/_data/assets/pdf_file/0022/49171/WESI-Env-weed-risk-screen-report-Jan-2016_ONLINE.pdf



Appendix A - Legal obligations and penalties for non-compliance

Roles and responsibilities

Everyone has a role in the management of declared weeds.

Owners or Occupiers of Land: All owners or occupiers of land (public and private) are responsible for managing declared weeds on their land as per the Act and relevant statutory weed management plans, including this plan, the Weed Management Plan for Gamba Grass 2020 – 2030, 2023 Revision.

Northern Territory Government agencies have responsibility to manage declared weeds on land under their care and control including vacant Crown land, NT-managed National Parks and reserves and major road reserves.

Local Government: Local governments have responsibilities to manage declared weeds on land they occupy or own including local road reserves.

Australian Government have responsibilities to manage declared weeds on land under their care and control including Commonwealth lands, including Defence land and Kakadu and Uluru Kata Tjuta National Parks.

Penalties for offences under the Act

A weed management officer can instruct an owner or occupier of land outlining reasonable measures that must be taken for the control or eradication of a declared weed species within a specified timeframe. Not complying with the instruction is an offence and may involve financial penalty.

The Northern Territory Government has the capacity to prosecute for non-compliance with the Act or this weed management plan. Owners or occupiers of land should be aware of the following penalties that can apply to the following non-compliances of the Act:

- Section 9 (general duties) of the Act can incur a range of penalties from 77 to 770 penalty units¹⁴ for an individual and between 385 to 3850 penalty units¹⁴ for a body corporate.
- Section 28(1) (an order) can incur a penalty of up to 100 penalty units¹⁴.
- Section 14B(4) (a direction) can incur a penalty of 10 penalty units¹⁴ for an individual and 50 penalty units for a corporation.
- Section 15C (weed control notice) can incur a range of penalties from 77 to 1540 penalty units¹⁴ for an individual and between 385 to 7700 penalty units¹⁴ for a body corporate.

The amount of the penalty unit 14 changes each year and as of July 2023, a penalty unit 14 was \$176.

Permits

Historically, applications for a permit to use gamba grass under section 28F of the Act (whereby a person may apply to the Minister for a permit to use a declared weed) were considered by the Minister. The Minister has determined that with exception of areas under permit upon gazettal of this plan, no new permit applications to utilise gamba grass for grazing purposes will be considered in the Class A zone. Permits to utilise gamba grass for grazing purposes are subject to a range of conditions, which are audited for compliance on an annual basis.



¹⁴ Click on the link for current penalty unit value.

Appendix B - Summary of changes made during 2024 review

Glossary:

- Roads definition removed from footnotes and added to glossary.
- Definition of transport corridor updated in the glossary to clarify the area of the 'road reserve' and to specify the railway corridor is defined by the Australasia Railway (Special Provisions) Act 1999.

Section 2.2:

- Goal 2 has had an additional objective added as follows, "Objective 2g Understand the distribution of gamba grass in the Class B zone". This objective seeks to better understand the distribution of gamba grass in the class B zone, noting this will not to be to the same level as what is required for the Class A (eradication) zone.
- Objective 4c has been removed and incorporated with objectives 4a and 4b. This is because, "Objective 4c increasing voluntary compliance with gamba grass management requirements' is the outcome that objectives 4a and 4b seek to achieve.

Section 3.1 and 4.1:

- General duties have been updated to reflect the legislative changes introduced to the Act on 09/01/2023. Section 4.2:
 - Requirements 1.1, 2.2 and 6.3 have been updated to remove 'by July 2023' as this date has now passed and this requirement has come into effect.
 - Requirement 2.1 has been removed. From July 2023 onwards all <3 Ha blocks in the Class B zone are required to destroy all gamba grass. Therefore the requirement for a 15m buffer is no longer applicable.
 - Requirements 3.1, 3.2, 4.1, 4.2 and 6.1 have been updated to improve the readability of the requirements.
 - Requirement 3.3 has been updated to two new requirements to require that blocks between 3 140 Ha undertake annual gamba grass control activities and weed spread prevention activities to ensure that gamba grass free areas remain gamba grass free as well as undertaking annual gamba grass control activities so gamba grass is reduced.
 - Requirement 4.3 has been updated to remove 'monitoring' as it is not feasible to assess whether or not monitoring has been undertaken.
 - Requirement 5.1 has been updated to remove reference to a '40 m gamba grass free buffer around hay production areas' to an outcome focused requirement. I.e. the land owner or occupier will be required to decide what is necessary to ensure hay destined for sale remains free of any gamba grass.
 - Requirement 5.2 has been updated to refer to 'road' instead of 'public road'.
 - Requirement 6.2 has been updated to improve the readability of this requirement and remove reference to January 2022 as this date has now passed and this requirement has come into effect.
 - Requirement 6.5 has been updated to add the date 'after July 2025' as this is the applicable date for this requirement.

Table 8. Goal 2 – Contain and control gamba grass by actively managing infestations across the Class B zone and preventing spread into new areas

- Removal of performance measure, "An increase each year in the number of assessed land parcels that have implemented management requirements and percentile of properties assessed that are compliant e.g. 80% compliant." This performance measure has been replaced with "An annual compliance program is developed and implemented to assess compliance with this plan and compliance action is taken against properties not complying." This update has been made to clarify the intent around this performance indicator.
- The addition of a new objective "Understand the distribution of gamba grass in the Class B zone." Strategic actions, performance indicators and performance measures have been included for this strategic objective. This additional requirement reflects the work being undertaken by the WMB to assess and understand the distribution of gamba grass in the Class B zone (for example, the aerial survey for gamba grass of the Darwin rural area in May 2023). This requirement also reflect the need to better understand the distribution of gamba grass across the Class B zone and therefore requires a mapping and monitoring program that fulfils this need, noting this program will be different to what has been developed for the Class A zone.

Table 9. Goal 3 Protect priority environmental and cultural assets from the impacts of gamba grass

• Removal of the performance indicator, "Key environmental and cultural assets are prioritised in WMB regional plans, WMB compliance planning and stakeholder weed plans aimed at managing gamba grass". Alternative performance indicator included, "Key environmental and cultural assets¹² are prioritised in landholder



- management programs including regional plans". This change reflects that it is the responsibility of the land owner or occupier to manage the environmental and cultural assets on their land.
- Removal of performance measure, "An annual assessment of regional plans and compliance programs is conducted to evaluate their success in managing the threat gamba grass poses to key environmental and cultural assets." This has been replaced with the performance measure, "an annual map is produced with gamba grass overlayed across key environmental and cultural assets for target locations. The change removes the requirement for annual assessment and instead produce maps of key environmental assessments which is a more accurate measure to demonstrate progress towards managing key environmental and cultural assets.
- Update to the footnote 12 that defines environmental and cultural assets.

Table 10. Goal 4 - Increase community capacity and willingness to participate in gamba grass management

- The strategic action, "Promote methods of reporting gamba grass distribution" has been replaced with "improve landholder capacity for reporting gamba grass points in the Class A zone." The associated performance indicators and measures have also been updated. This action reflects the need to focus improving gamba grass reporting in the Class A zone as this is critical to tracking the eradication of gamba grass across this zone.
- An additional strategic action has been added, "promote the report gamba tool to encourage public reporting of problem gamba grass in the Class B zone". The associated performance indicators and measures have also been updated. This action reflects the focus on reporting problem gamba grass in the Class B zone.
- Removal of strategic action, "identify and prioritise gamba grass knowledge gaps and advocate for research activity in these areas". This has been replaced with, "research is undertaken that supports improved gamba grass management outcomes by addressing identified research gaps". Associated performance indicators and measures have also been updated. This update has been made to clarify this strategic action, how research gaps will be identified and reported on and how overcoming these research gaps will also be reported on.
- Performance indicators and measures have been updated for the strategic action, "promote research activities and updated management recommendations" to more specific measures and indicators.
- The strategic action, "Deliver an annual gamba grass research and development community forum with a focus on celebrating gamba grass success and identifying barriers and issues to inform further research" has been replaced with, "delivery of gamba grass forums with a focus on celebrating gamba grass successes and educating the community / land manager on how to manage gamba grass and identifying other needs." Performance indicators and measures have been updated for this strategic action. This update removes the requirement for an annual forum, which has not been possible to implement. Rather a forum every 2-3 years is now proposed. The focus of the forum has been also been clarified to not be about 'research and development' but rather about celebrating gamba grass successes and delivering information to help land owners or occupiers manage their gamba grass.
- An additional strategic action has been included as follows, "collaborate with other jurisdictions on the production of a National Best Practice Gamba Grass Manual by early 2024." This reflects the progress made on the development of a National Gamba Grass Best Practice Manual and the expected timeframes for the delivery of this manual.
- Objective 4c has been removed as a standalone objective and has been incorporated within the 4a and 4b objectives. This is because the objective 4c which focuses on 'increasing voluntary compliance' is an outcome that the plan strives to achieve through implementation of objectives 4a and 4b.

Table 11. Goal 5 - Implement transparent and accountable compliance, monitoring and reporting processes

• Update to the strategic action, "by 30 July each year, deliver an annual report which addresses all performance indicators" to "by 30 September each year, deliver an annual report which addresses all performance indicators". This strategic action has been updated to reflect the need for time to collaborate with key stakeholders in order to report against implementation of the gamba plan.

