



Local Land
Services
Northern Tablelands

Northern Tablelands Regional Strategic Weed Management Plan **2017 - 2022**



Developed in partnership with the
Northern Tablelands Regional Weed Committee

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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing June 2017. However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Local Land Services or the user's independent adviser.

Acknowledgement of Country

The Northern Tablelands Local Land Services region is situated in the traditional lands of the *Kamilaroi, Anaiwan, Ngoorabul, Banbai, Thungutti, Bundjalung, Gumbainggir Nations* and the various Aboriginal tribes and language groups within those Nations. The Northern Tablelands Local Board acknowledges and pays its respects to Elders, both past and present of these nations.

We acknowledge that the protection and promotion of Aboriginal culture, heritage, traditional land management practices and spiritual beliefs is an issue of great importance to the traditional owners of these lands and waters and is of benefit to the whole community. Stronger shared cultural values will ensure a more reconciled and resilient community in the Northern Tablelands.



Acknowledgement of contributors

This plan was developed by the Northern Tablelands Regional Weed Committee on behalf of the Northern Tablelands Local Land Services Board.

The Northern Tablelands Local Land Services Board wishes to acknowledge the work of the committee and regional support staff in developing this plan. The board would also like to thank the Technical Sub Committee of the State Weeds Committee for their support in weed risk prioritisation and the State Weeds Committee, Office of Environment and Heritage (OEH) and Department of Primary Industries (DPI) for their guidance in the development of this plan.

The authors wish to acknowledge that some text within this plan was drawn from a range of NSW DPI publications, including the draft Invasive Species Plan, NSW Biosecurity Strategy 2013 – 2021 and the *Biosecurity Act 2015* Discussion Paper: Weeds. Development of this plan was supported through NSW Weeds Action Program funding from the NSW Government.

The Northern Tablelands Regional Weed Committee acknowledges the valuable input from its members in the preparation of this document and in particular NSW Weeds Action Program Regional Project Officer, Ms Heather Apps and New England Weeds Authority General Manager, Mr Wayne Deer.

Chair's foreword

I am pleased to present the first Northern Tablelands Regional Strategic Weed Management Plan on behalf of Northern Tablelands Local Land Services, member Councils and stakeholders of the Northern Tablelands Regional Weed Committee.

The plan sets our strategic direction in weed management and control for the next five years, building on the achievements of the previous Northern Inland Weeds Advisory Committee (NIWAC) whilst addressing the challenges of weed management and control into the future.

The estimated cost of weeds to NSW agriculture is \$1.4 billion annually, environmental and social costs could double this figure, thus demanding appropriate planning and strategic implementation of control programs.

The effective management of invasive weed species is crucial to maintaining the 'triple bottom line' of social, economic and environmental sustainability. To achieve this, clear and practical methods of prioritising weeds and their control are most critical to maximise short and long term benefits.

The Regional Strategic Weed Management Plan prioritises weeds into various landscapes and details action plans. It is a document to be used by a wide cross section of the community responsible for natural resource and land management.

The plan aims to provide landholders and land managers with the knowledge and tools to make informed decisions in weed management and control, taking into account the limited resources and funds available.

Central to the success of this plan is the need to continue to build ownership by the whole community, taking a regionally co-ordinated and co-operative approach with an appreciation by all stakeholders of their responsibilities and contributions to better manage weeds within the Northern Tablelands Local Land Services region.

Northern Tablelands Local Land Services has been established to deliver efficient and effective integrated services associated with agricultural production, biosecurity, natural resource management and emergency management, with great importance based upon a regional delivery focus.

The plan has been developed through a strategic review of key national, State and regional operational plans and strategies.

These Plans include:

- *Premier's Priorities.*
- *Local Land Services Act 2013 and Regulation 2014.*
- *NSW Biosecurity Strategy 2013 – 2021.*
- *NSW Biosecurity Act 2015.*
- *Draft NSW Invasive Species Plan 2015 – 2022.*
- *Northern Tablelands Local Strategic Plan 2016 – 2021.*
- *Northern Tablelands Regional Weed Committees' Weeds Action Business Plan 2015 – 2020.*
- *Northern Inland Weeds Advisory Committee Regional Weed Strategy 2010 – 2015.*

I would like to thank the members of the Northern Tablelands Regional Weed Committee, Council Weed Officers and other agency stakeholders who contributed to the development of this document with their expertise and time.

Maria Woods
Chairperson

Executive Summary

The Northern Tablelands Region supports a diverse and distinct mixture of landscape, livelihood, cultural and lifestyle values. Strategic and coordinated regional weed management is critical to building the sustainability of the primary industries, natural environments and local communities in the Northern Tablelands region.

NSW is in the process of reforming its weed, pest and disease biosecurity legislation. Together, the NSW Biosecurity Strategy 2013-2021 and NSW *Biosecurity Act 2015* (which repeals the *Noxious Weeds Act 1993*) provide a modernised and clear vision for safeguarding our primary industries, natural environments and communities from a range of biosecurity threats (pests, diseases and weeds).

The Regional Strategic Weed Management Plan (RSWMP) is a direct response to this legislative reform. It was prepared by the Northern Tablelands Regional Weed Committee on behalf of the Northern Tablelands Local Land Services, with guidance from the State Weeds Committee.

The plan covers weed risks that impact:

- animal and plant industries, including agriculture, aquaculture, recreational and commercial fishing in our freshwater systems and forestry;
- biodiversity and the natural (terrestrial and aquatic), urban and peri-urban environments;
- human health, lifestyle, cultural values, recreation and social amenity;
- infrastructure and service industries, including energy, transport and water supplies.

The plan sets the vision for weed management on the Northern Tablelands for the five years from 2017 and outlines strategies and actions to achieve goals that focus on shared responsibility for weed management, sustainable landscapes and collaborative leadership and innovation.

The plan supports the reform by providing a sound basis for a co-operative and co-ordinated approach to landscape scale weed management in the Northern Tablelands region. It articulates what “shared responsibility” means for the region’s communities and stakeholders and how they will work together to identify, minimise, respond to and manage high risk weeds, both now and into the future.

The *Biosecurity Act 2015* applies equally to all land in the region, whether public or private (i.e. it is tenure neutral) and contains a range of new regulatory tools and a General Biosecurity Duty (GBD) that support this approach to managing weed biosecurity risk. This plan outlines these new tools, including Prohibited Matter, Biosecurity Zones, Mandatory Measures and Control Orders and how they will be applied.

The plan also outlines land manager obligations under the General Biosecurity Duty in the region, which for weeds is broadly defined as *any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable)*. An expert panel has used best available evidence and an internationally-recognised risk-based prioritisation system to develop a priority weed list. Appendix 1 includes these regional priority weeds to which “special requirements to discharge the General Biosecurity Duty” have been identified and includes State level priority weeds for the region. Appendix 2 lists other priority weeds identified in the prioritisation process as a further focus for weed management in the Northern Tablelands.

Local Land Services has responsibility for implementing a number of key recommendations under the reforms which includes the formation of statutory Regional Weed Committee’s. The Northern Tablelands Regional Weed Committee has been established in response to this reform recommendation and is one of 11 regional committees across the state. The first term of the committee has focused on the development of this plan and the role of the committee is likely to evolve as the focus shifts to implementing this plan. Through its membership, the committee provides tenure-neutral strategic planning and co-ordination of weed management activities at a regional level and is a forum for community and stakeholders in decision making. The committee works closely with the State Weeds Committee that has been established to ensure a consistent, coordinated and strategic approach to weed management in NSW.

A range of stakeholders have played an important role in the evolution of weed management planning in the region over many years. This plan has built on past planning efforts and has gained immeasurably from the accumulated experience and expert local knowledge of committee members and their networks. Much of this experience sits on the Northern Tablelands Regional Weed Committee which includes representatives from Local Government and County Councils, NSW Department of Primary Industries, State government agencies managing crown lands (including the National Parks and Wildlife Service, Forestry Corporation of NSW, Rail Corp – Transport NSW, Roads and Maritime Services and Department of Industry - Lands), NSW Farmers, Landcare, Aboriginal land managers, environmental interests, rural landholders and Northern Tablelands Local Land Services.

The Regional Weed Committee will play an important role through its members in coordinating the implementation of the plan.

Stakeholders will come together to develop key processes that facilitate the delivery of:

- shared responsibility;
- standardised, tenure neutral and prioritised approaches to weed management planning, investment and delivery across the region;
- strategic approaches to communicating locally relevant key messages, and engaging partners, stakeholders and the broader community;
- coordinated and integrated information management and research capacity;
- regional measures of performance that track the progressive impacts of our programs and interventions, investment in priorities and progress towards outcomes of shared responsibility for weed management, sustainable landscapes and collaborative leadership and innovation;
- robust monitoring, reporting evaluation and improvement processes that allow for measuring the performance of this plan, the effectiveness of the region's overall investment in weed management, and how we can improve our weed management projects, programs and policies.

Identifying local implementation roles, responsibilities and partnerships will be integral to these processes.

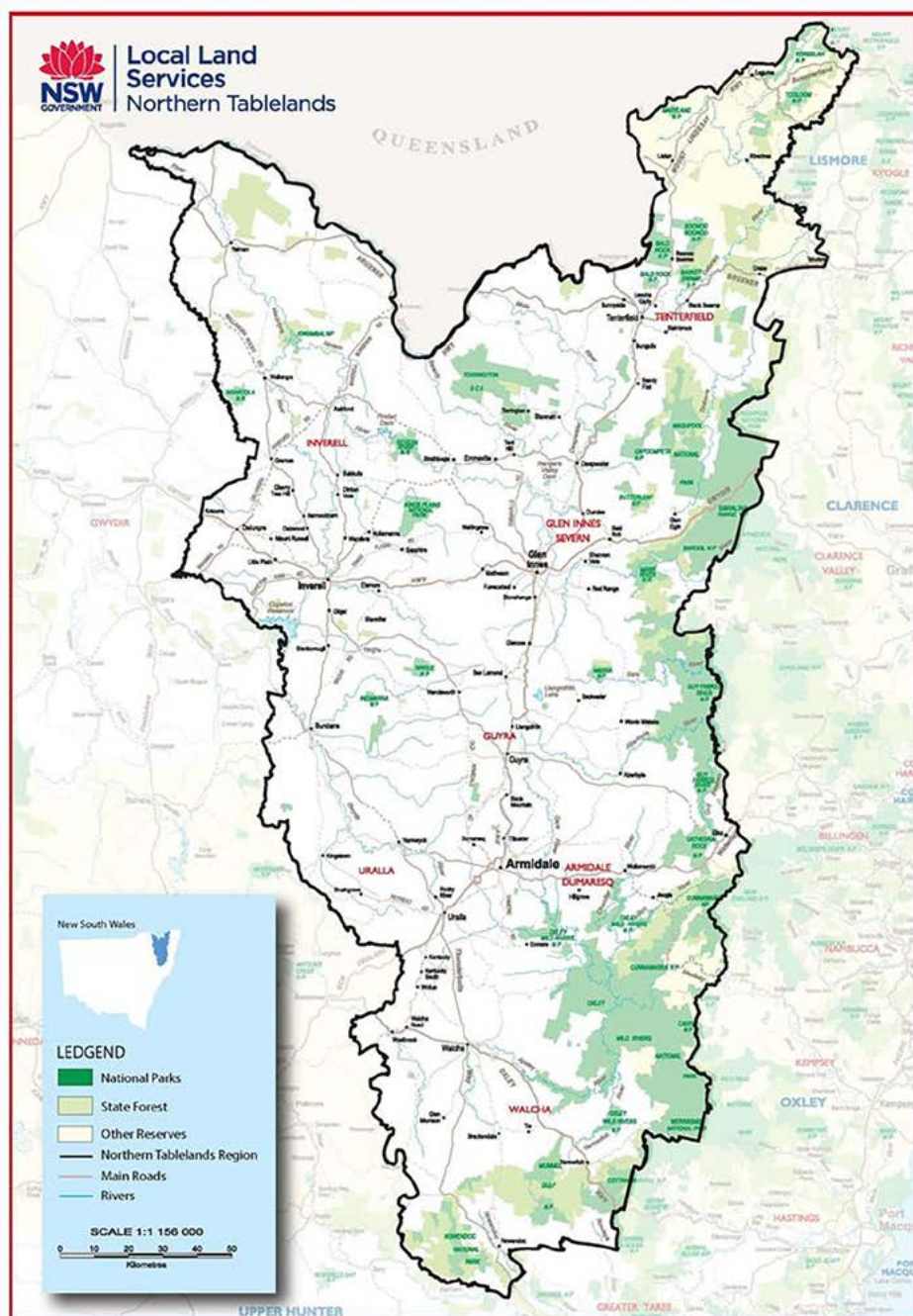


1. Intent of Plan

1.1 Introduction and scope

Biosecurity is vital for the health, well being and prosperity of everyone in NSW. It is about protecting the economy, environment and community from the negative impacts of pests, diseases and weeds. This Northern Tablelands Regional Strategic Weed Management Plan focuses on managing weed biosecurity. The plan supports regional implementation of the NSW *Biosecurity Act 2015* through articulating community expectations in relation to effective weed management and facilitating a consistent and coordinated approach to weed management in the region. The plan relates to all lands and waters in the Northern Tablelands Local Land Services (NTLLS) region of NSW (Figure 1.1).

Figure 1.1: Northern Tablelands Local Land Services region.



The plan is based on best available local knowledge, research and technology and a rigorous assessment of biosecurity risks posed by weeds. It will guide resource allocation and investment in the region and provide a consistent basis for regional planning and delivery.

Biosecurity is everyone's responsibility. This plan supports development of that culture and guides the community in effective management of weeds and how to meet their statutory obligations.

The Northern Tablelands Regional Strategic Weed Management Plan supports the *Local Land Services Act 2013* and implements the NSW weed reforms, Biosecurity Strategy and Invasive Species Plan in relation to weeds for the Northern Tablelands region.

It has been prepared by the Northern Tablelands Regional Weed Committee behalf of Northern Tablelands Local Land Services Board, and covers weed risks that impact:

- animal and plant industries, including agriculture, aquaculture, recreational and commercial fishing and forestry
- biodiversity and the natural (terrestrial and aquatic) and urban and peri-urban environments
- human health, lifestyle, recreation and social amenity
- infrastructure and service industries, including energy, transport and water supplies.

Background information on the weed reforms and the committee is provided in Section 1.3. This plan sets the vision, goals and objectives for weed management in the Northern Tablelands for the next five years and outlines the strategies and actions through which these goals will be achieved.

1.2 Purpose, Vision, Goals and Objectives

This plan provides a sound basis for a co-operative and co-ordinated approach to weed management, and delivers outcomes at a landscape scale, consistent with the weed reforms for NSW. It also supports a strong, resilient and inclusive weed management culture that will enable the Northern Tablelands community, environment and industries to respond to future weed biosecurity challenges. The Vision for this plan is:

Government, industry and the people of the Northern Tablelands working together to protect the environment, economy and community from the negative impacts of weeds.

The plan outlines how government, industry and the community share responsibility and will work together to identify, minimise, respond to and manage high risk weeds.

The goals, objectives and outcomes for this plan align with those of the NSW Biosecurity Strategy 2013-2021 and the Northern Tablelands Local Land Services Local Strategic Plan 2016-2021, which provide the overarching policy framework.

Our Goals for the Northern Tablelands region are that:

1. Responsibility for weed biosecurity is shared by the Northern Tablelands community
2. Weed biosecurity supports profitable, productive and sustainable primary industries
3. Weed biosecurity supports healthy, diverse and connected natural environments
4. Weed biosecurity is supported by coordinated, collaborative and innovative leadership.

The outcomes we expect to see in achieving our goals and the more specific and measurable objectives and strategies to achieve them, are shown in Table 1.1 in relation to our vision and goals. Outcomes for this plan are consistent with outcomes for the NSW Biosecurity Strategy.

Table 1.1: Vision, Goals, Outcomes, Objectives and Strategies

VISION Government, industry and the people of the Northern Tablelands region working together to protect the environment, economy and community from the negative impacts of weeds.			
GOALS	SHARED RESPONSIBILITY	SUSTAINABLE LANDSCAPES	COLLABORATIVE LEADERSHIP AND INNOVATION
	1. <i>Responsibility for weed biosecurity is shared by all people</i>	2. <i>Weed biosecurity supports profitable, productive and sustainable primary industries</i> 3. <i>Weed biosecurity supports healthy, diverse and connected natural environments</i>	4. <i>Weed biosecurity is supported by coordinated, collaborative and innovative leadership</i>
OUTCOMES	<ul style="list-style-type: none"> Community, industry and government are sharing responsibility for weed management and have a clear understanding of their roles and obligations. People have the skills, knowledge, capacity and capability to deliver weed management activities. Strong supportive partnerships improve weed management for all partners. Awareness of weed management in the region has improved with communication and engagement. 	<ul style="list-style-type: none"> Weed management is integrated and coordinated across all tenures. Weeds are monitored at landscape and industry scales and developing problems are proactively managed. Weed management is supporting landscape health and key assets important to biodiversity. Primary industries are using leading weed management practices that contribute to increases in productivity, sustainability and market access with minimal impacts on natural resources. Sensitive Aboriginal cultural heritage areas are protected Weed biosecurity threats are continually identified, assessed and prioritised across Northern Tablelands environment and primary industry sectors Weed biosecurity emergencies and high risk pathways are well managed. Impacts on high priority assets have been minimised through risk based weed management programs 	<ul style="list-style-type: none"> Engagement, collaboration and involvement of local people in decision making are coordinated. Relevant and timely information supports decision making by the NT Regional Weeds Committee and the State Weeds Committee. Information, monitoring, performance evaluation and reporting systems, provide for benchmarking, continuous improvement, stakeholder feedback and innovation. A strong evidence and knowledge base is supporting innovation and strengthening research. Changes in weed behaviour under a changing climate are being understood and monitored.

OBJECTIVES	<ul style="list-style-type: none"> Communicate a clear strategic vision and build support for a strong and integrated biosecurity system for the region. Provide the foundation for all customers and stakeholders to work together and to fully utilise knowledge and expertise across all groups. Foster accountability for weed management in the region at all levels 	<ul style="list-style-type: none"> Improve effectiveness in prevention and response to new weed incursions. Prevent, eradicate, control and manage the impacts of weeds. Understand and have regard for the impacts of a changing climate on weed biosecurity. 	<ul style="list-style-type: none"> Provide a framework for more detailed planning, monitoring and reporting of weed management programs. Provide guidance for weed management prioritisation, decision making and actions at a regional level. Support consistent and coordinated regional weed management planning and local delivery. Support leading practice in weed management through ongoing creation and sharing of knowledge and spatial information.
STRATEGIES	<ul style="list-style-type: none"> Promote weed management and behavioural change in the community. Build stronger partnerships that support weed management. Enhance community-wide capacity in sharing responsibility for weed management. 	<ul style="list-style-type: none"> Improve surveillance, reporting and tracing systems for weeds. Improve prevention, preparedness and response to weed emergencies. Eradicate or prevent the spread of new weeds. Contain and manage impacts of widespread weeds. Support and utilise developments in weed science and technology. Use results of research (for example, Weed Futures, BioClim, ANUClim) to assess and respond to changing risks under a changing climate. 	<ul style="list-style-type: none"> Provide governance and leadership that supports collaborative, effective and efficient weed management. Adopt adaptive, contemporary planning and processes. Develop a regional invasive weed knowledge base and information system that supports state standards. Develop consistent systems for monitoring, evaluating and reporting on the effectiveness of weed management.

1.3 A more strategic approach to weed management

1.3.1 Drivers

A range of issues are increasing the need to manage weeds more strategically and efficiently:

- Globalisation is integrating the world economy with rapid growth in trade, tourism, passenger and cargo movements. This is increasing the risk of pest, disease and weed incursions.
- Our climate is becoming more variable, with more extreme weather events, increasing average temperatures and other changes expected for many years to come. These changes are likely to favour the establishment, spread or shift of some weeds and limit the distribution and impact of others.
- Weeds are a major threat to Australia's natural environment. The impact of weeds on Australian agriculture alone, are estimated to be \$2.5 billion in lost production and \$1.8 billion in control activities every year (NSW DPI, 2015). Impacts on biodiversity and natural environments are harder to quantify, but equally significant.
- The demand for food is continually increasing, with modelling indicating global food production will have to double between now and 2050 to keep up with demand. We need to do everything we can to protect our capacity to produce food from weeds which negatively affect productivity.
- Pressure to maintain profitability and increase efficiency are ongoing in government, industry, and business sectors with an aging population and an increasingly global economy. It is crucial that limited resources for weed biosecurity are used wisely, with constructive partnerships and clear decision-making processes established.

Technological developments are also creating opportunities to improve the cost effectiveness of on ground weed control, improving our capacity to co-ordinate our efforts and work more strategically at a landscape scale. Planning for weed management must consider the effectiveness and efficiency of control measures so that the cost is commensurate with the benefit.

In consideration of these drivers, the NSW Biosecurity Strategy 2013-2021 established a clear vision for how we can safeguard our primary industries, natural environments and communities from biosecurity threats. The most effective way to manage invasive species is to prevent their incursion in the first place. Invasive species have the ability to establish rapidly in new areas and successful eradication requires a timely and rapid response.

1.3.2 Weed management reforms

In May 2013 the NSW government released the NSW Biosecurity Strategy 2013-2021. With fourteen different pieces of legislation dealing with biosecurity in NSW at the time, a key goal of the Strategy was to ensure that "Biosecurity is underpinned by a responsive and consistent legislative framework". To inform the development of new legislation and other strategies, a *Review of Weeds Management in NSW* was undertaken by the Natural Resources Commission for the NSW Government in 2013-14. The Review identified a number of key themes that were accepted as important areas for weed management reform by the NSW government. These included:

- Community-wide shared responsibility
- Consistent and transparent state level guidance
- Consistent and coordinated regional planning and local delivery
- Effective prevention measures and response to new incursions
- Improved management of high-risk pathways
- Improved accountability for weed management at all levels
- Improved research and development.

The government also saw the need to focus on underlying causative factors driving the spread of weeds, rather than just the weeds themselves.

With a clear need for weed management reform, a new *Biosecurity Act* was developed to consolidate and modernise the way all biosecurity is managed in NSW. During consultation on the Framework for the Biosecurity Act in 2014, weeds were the most mentioned biosecurity threat in public submissions, reflecting significant interest in weed management, especially in rural and regional areas.

The *Biosecurity Act 2015* repeals the *Noxious Weeds Act 1993*, which previously provided regulatory controls and powers to manage noxious weeds in NSW.

The *Biosecurity Act 2015* provides the opportunity to streamline and modernise the way weeds are managed in NSW as it:

- Embeds the principle of shared responsibility for biosecurity risks (including weeds) across government, community and industry.
- Is tenure neutral, meaning that the act will apply equally to all land in the state, regardless of whether it is publicly or privately owned.
- Supports regional planning and management for weeds, as recommended by the *Review of Weeds Management in NSW*.

Under the *Noxious Weeds Act 1993* (repealed) private landholders had different weed control obligations than public land managers. The tenure neutral approach recommended in the Review of Weeds Management and adopted under the *Biosecurity Act 2015* and this plan is consistent with the principle that biosecurity is everyone's responsibility.

1.3.3 Implementing the weed management reforms

This plan implements part of the weed reforms and lists weeds prioritised for management action, investment and compliance effort in the region. Box 1 explains the status of this plan with respect to regulation of weeds.

Box 1: Status of this plan with respect to regulation

This plan is made under the *Local Lands Services Act 2013* to closely link to the Local Land Services region as the (weeds) coordinating body and to the Northern Tablelands Local Land Services Local Strategic Plan which defines the priorities and strategy in respect of delivery of services.

In relation to the relevance of this plan to enforceable weed management, the primary instrument is the *Biosecurity Act 2015*. This statute provides the processes for defining and enforcing requirements concerning Biosecurity Matter (weeds). This plan articulates the priorities and determined as reasonable standards for weed management in the region. The role of the document in regulation is to provide an agreed standard for people to reasonably meet. The plan development and weed risk prioritisation process provides evidence of a considered and agreed position.

While this plan is not enforceable in its own right, it does provide "evidence" of the communities will in the matter and of the need (through a Weed Risk Management System and other evaluation processes) to manage particular weeds in certain ways.

To implement the weed reforms, Northern Tablelands Local Land Services was given responsibility for:

- forming a statutory Regional Weed Committee and ensuring it functions appropriately
- producing and co-ordinating the delivery of the Northern Tablelands Regional Strategic Weed Management Plan
- facilitating and coordinating strategic planning for weed management in the region
- assisting with education and community outreach programs.

These responsibilities are consistent with the recommendations of the Natural Resources Commission and the *Local Land Services Act 2013*.

Statutory Regional Weed Committees (11 across NSW) were established as *Local Community Advisory Groups* under Section 33 of the *Local Land Services Act 2013* and have replaced the former Regional Weeds Advisory Committees (14).

The Northern Tablelands Regional Weed Committee was given responsibility for:

- developing and endorsing the Northern Tablelands Regional Strategic Weed Management Plan
- supporting implementation of the weeds component of the NSW Biosecurity Strategy, NSW Biosecurity Act and the NSW Invasive Species Plan
- allocating state funding to local control authorities based on this plan and ensuring consistency across land tenancies
- developing education and awareness programs.

The committee includes representatives from Northern Tablelands Local Land Services, NSW Department of Primary Industries, State government agencies managing crown lands (including the Office of Environment and Heritage, Forestry Corporation NSW, Rail Corp – Transport NSW, Roads and Maritime Services and Department of Industry - Lands), local government and county councils, NSW Farmers Association, Landcare, Aboriginal Land Council, and the Nature Conservation Council. Through this representation, the committee provides tenure neutral strategic planning and co-ordination of weed management activities at a regional level and also provides a forum for community and stakeholders in decision making.

A State Weeds Committee (SWC) was also established and has a role in overseeing implementation of the weed management reforms, auditing, evaluating weed declarations, state-level oversight and governance. That role includes developing service delivery standards for weed compliance and commissioning audits.

The relationship between Local Land Services, the Regional Weed Committee, the State Weeds Committee and other customers and stakeholders is shown in Figure 1.2. Government, industry, industry associations, research providers, universities, non-government organisations, individuals and the community as a whole all have a role to play in the management of weed biosecurity risks. How the plan will be managed and implemented and the roles of Local Land Services, the Regional Weed Committee and key stakeholders in implementing this plan are covered in Section 6.1.

This plan is a partnership between the committee, stakeholders, the community and Local Land Services. Working together, the committee has developed this plan on behalf of the Northern Tablelands Local Land Services Board.

Figure 1.2: Roles in weed management.

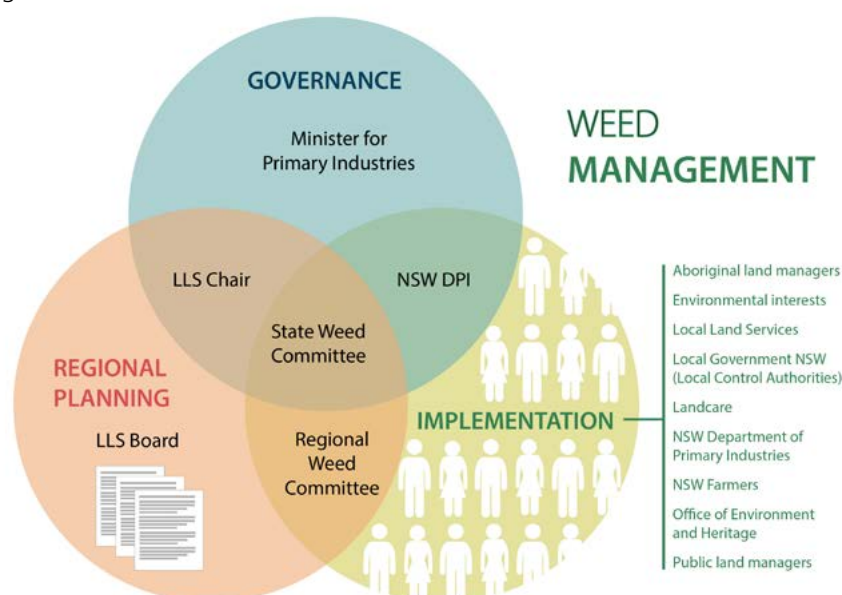
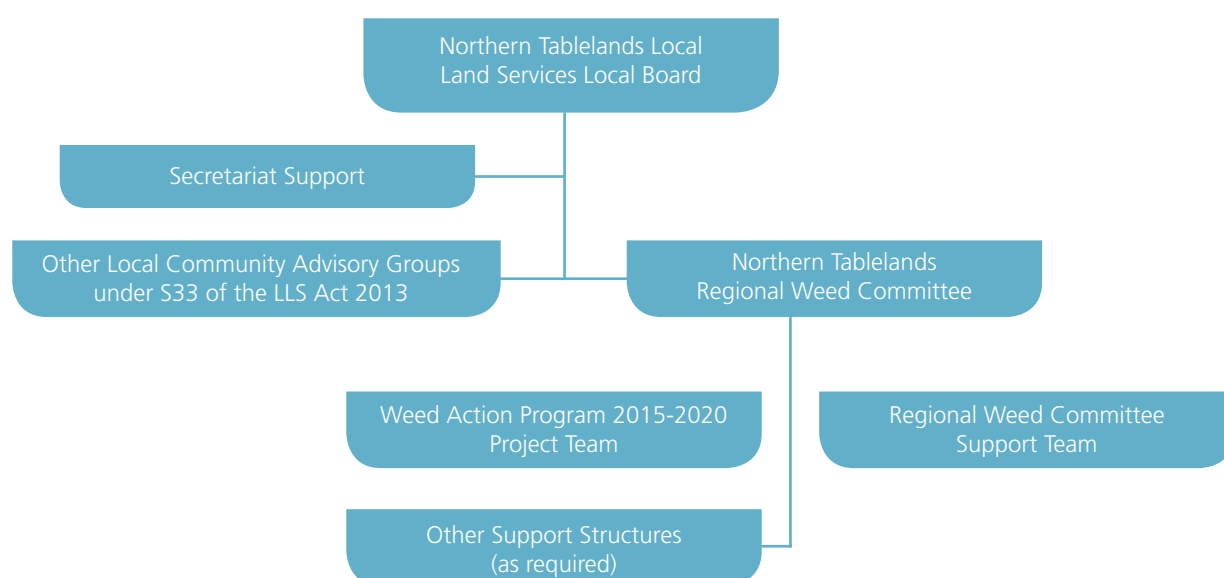


Figure 1.3 below shows the relationship between the Regional Weed Committee and the Northern Tablelands Local Land Services Board. While accountable to the Board, the Regional Weed committee can also raise significant weed policy issues to the State Weeds Committee for their consideration and the State Weeds Committee or its members can liaise directly with the Regional Weed Committee through its secretariat, such as in the development and delivery of performance standards for service delivery.

Figure 1.3: Regional Weed Committee relationship to Northern Tablelands Local Land Services.



1.4 How the plan was developed

The Northern Tablelands Regional Weed Committee was tasked with producing this Regional Strategic Weed Management Plan based on the:

- Natural Resources Commission's recommendations for weed reform adopted by the NSW government
- *Biosecurity Act 2015*
- The Performance Standard for Local Land Services.

The State Weeds Committee and Local Land Services provided guidance on overall standard content for all RSWMP across NSW. Committee member participation in the planning process was critical for ensuring that this plan and its requirements are appropriate, equitable and enforceable.

A key part of developing this plan was a review and prioritisation of weeds in the region. This was done to develop a priority weed list (Appendix 1) and other regional weed lists (Appendix 2), using a risk based approach that is internationally recognised. Use of local expertise, data and weed distribution information, were essential inputs to the process. The results were peer reviewed and assessed for consistency with the prioritisation system and the *Biosecurity Act 2015*. The process and how weeds were assessed in the region are covered in Section 4.4.

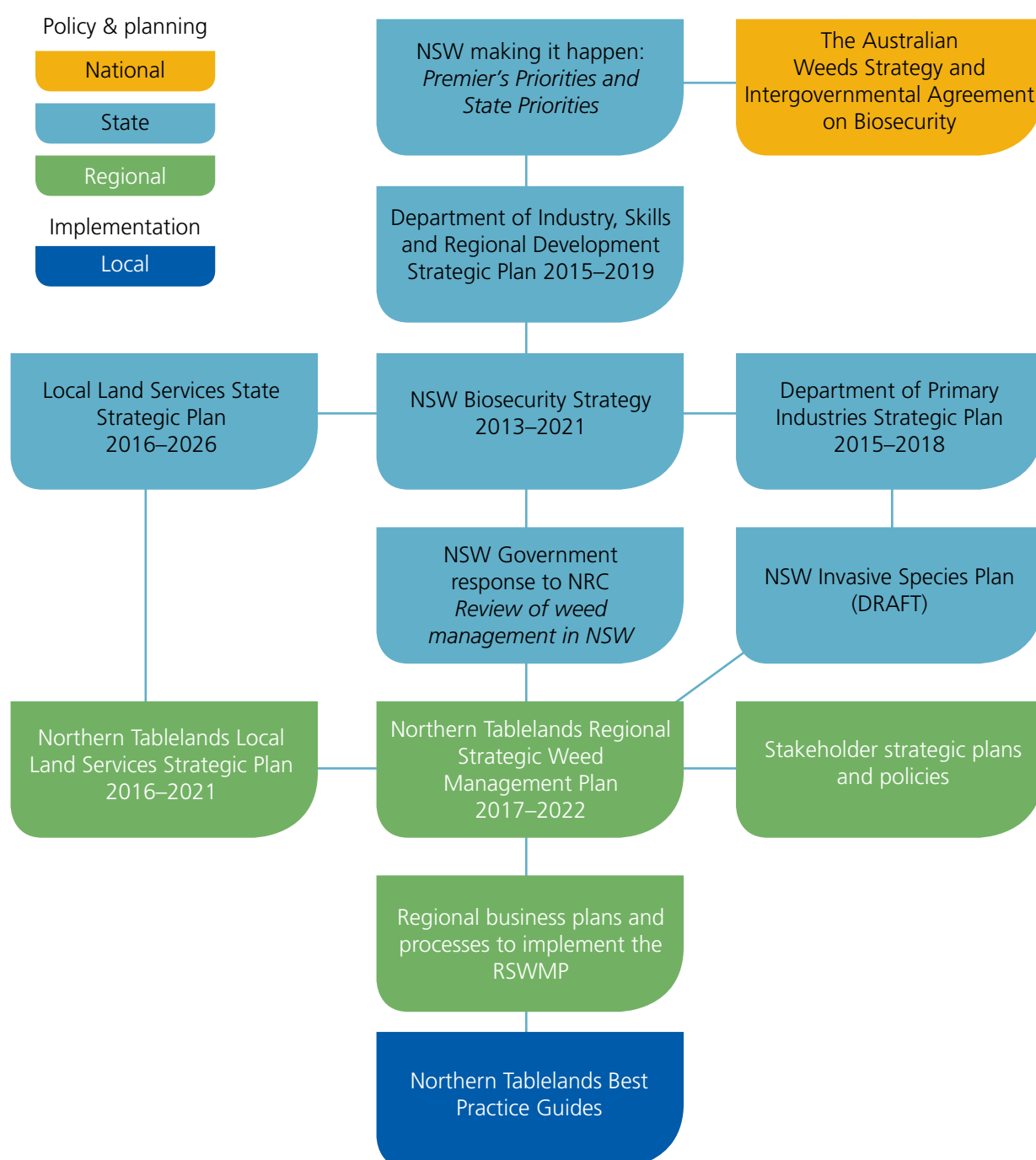
With the benefit of a clear path for reform and new legislative arrangements, this plan has built on past planning efforts, and has gained immeasurably from past experience in weed management and accumulated knowledge in the region. This plan has benefited from extensive consultation and collaboration with key stakeholders to date, and the accumulated experience and expert local knowledge of committee members and their networks. Further community and stakeholder feedback on this plan will guide further refinements in strategic weed planning and implementation on the Northern Tablelands.

2. Policy and Planning Framework

2.1 Overview of key plans and legislation

The Regional Weed Committee has considered a range of plans and strategies directly relevant to development of this plan, at national, State and local levels. Figure 2.1 shows the National and State planning framework relevant to this plan.

Figure 2.1: Overall planning framework for the Regional Strategic Weed Management Plan

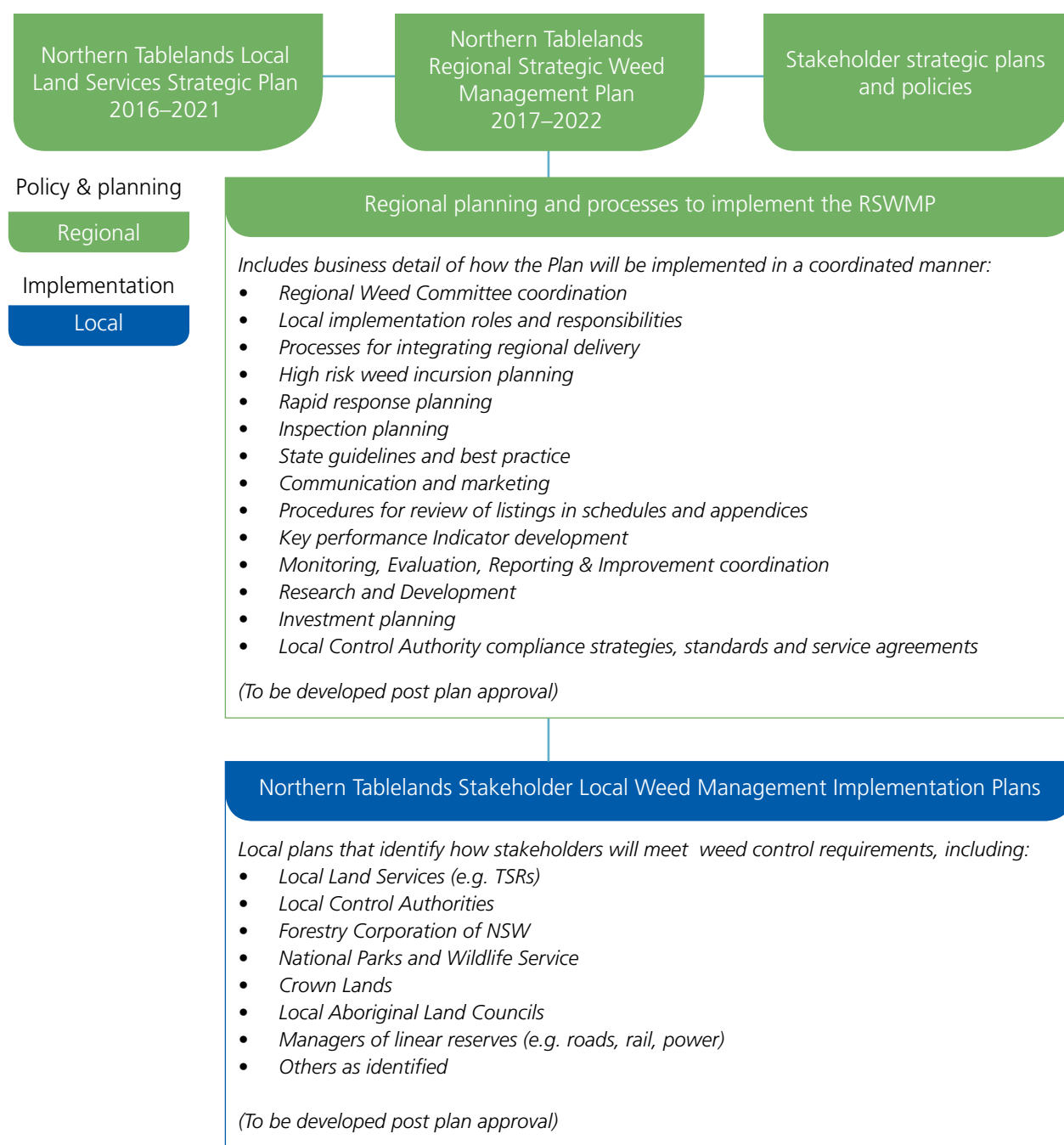


2.2 Regional planning

Figure 2.2 shows the planning framework for this plan within the region. The list of plans and policies to implement the plan shown in Figure 2.2 will be refined as implementation proceeds. Some business planning components and policies already exist or simply need refining (for example rapid response planning) while others are yet to be developed. The development of these supporting plans and policies will be prioritised in collaboration with Local Land Services, Local Government and County Councils and other key stakeholders.

The Regional Strategic Weed Management Plan will be underpinned by the local implementation and operational plans of the regions key stakeholders. Specific local actions, targets and time frames for delivery will be outlined in more detail in these underpinning documents and will be reported against annually or as required. Further information on implementation of this plan is covered in Section 6.

Figure 2.2: Regional planning framework for the Regional Strategic Weed Management Plan



2.3 Guiding legislation

The NSW *Biosecurity Act 2015*, *Local Land Services Act 2013* and *Local Government Act 1993* are the key legislation directing the implementation of this plan. The *Biosecurity Act 2015* takes effect with publication of the regulations in the NSW Government Gazette in 2017. This Act is administered by NSW Department of Primary Industries.

A range of other state and national legislation will also influence how the plan is implemented.

Key NSW legislation relevant to weed management that will continue to operate in tandem with the *NSW Biosecurity Act 2015*, are the:

- *Local Government Act 1993*.
- *Local Land Services Act 2013*.
- *National Parks and Wildlife Act 1974*.
- *Biodiversity Conservation Act 2016*.
- *Forestry and National Park Estate Act 1998*.
- *Crown Lands Act 1989*.
- *Crown Lands (Continued Tenures) Act 1989*.
- *Biodiversity Conservation Act 2016*.

The Crown Lands Management Bill 2016 has passed the NSW Parliament and the new Act is likely to repeal the *Crown Lands Act 1989* and certain other legislation early in 2018. Information about the new act is available from the Department of Industry - Lands website.

Biodiversity management in NSW is also being reformed, with the NSW government implementing recommendations from the Independent Biodiversity Legislation Review Panel. This includes the new *Biodiversity Conservation Act 2016* and Saving Our Species (which will address a range of weeds in schedule 4 of the *Biodiversity Conservation Act 2016* listed as Key Threatening Processes). The State Weeds Committee will liaise with regional weed committees on the effect of any changes to relevant legislation impacting on the *Biodiversity Act 2015*.

2.4 Biosecurity Act

The *Biosecurity Act 2015* has repealed the *Noxious Weeds Act 1993*, which has provided regulatory controls and powers to manage noxious weeds in NSW. The *Biosecurity Act 2015* streamlines and modernises the way weeds are managed in NSW as it:

- embeds the principle of shared responsibility for biosecurity risks (including weeds) across government, community and industry
- applies equally to all land in the state regardless of whether it is publicly or privately owned
- is premised on the concept of risk so that weed management investment and response is appropriate to the risk
- supports regional planning and management for weeds as recommended by the *Review of Weeds Management in NSW*

In keeping with its premise that biosecurity is a shared community responsibility, the Act introduces the legally enforceable concept of a General Biosecurity Duty.

2.4.1 General Biosecurity Duty

For weeds, the General Biosecurity Duty (GBD) means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable).

“Dealing has a broad definition in the Act and includes (but is not limited to) activities such as grazing, cropping, fodder production, horticulture, weed control, seed and other plant production as well as carrying, sale and distribution of these products. In general if you deal with or carry plant matter as part of a commercial, professional, volunteer or recreational activity or lifestyle, it would be considered that you would know, or ought to know, the risks. Plant matter includes plants, parts of plants and seeds. Weeds are not limited to plants listed in the appendices of this plan or to schedules in the Regulations of the *Biosecurity Act 2015*: any species that poses a biosecurity risk is subject GBD. This provides the Act with more flexibility to deal with both agricultural and environmental weeds, plants that may pose risks in particular contexts, and invasive species which are not as yet present, but pose a risk.

2.4.2 Regulatory tools of the Act

The *Biosecurity Act 2015* includes a number of mechanisms (regulatory tools) that can be used to manage weeds in NSW. These are outlined in Table 2.1 below. The *Biosecurity Act 2015* and Regulations provide specific legal requirements for high risk activities and state level priority weeds. The state level priority weeds and associated legal requirements relevant to the region are included in Appendix 1 together with the high risk priority weeds from the regional prioritisation process.

Biosecurity Act Tool
<p>Prohibited Matter: biosecurity matter listed in Schedule 2, Part 1 of the NSW <i>Biosecurity Act 2015</i> for the purpose of preventing entry of that matter into NSW or a part of NSW. Prohibited matter relevant to the region is listed in Appendix A 1.1 of this plan. Prohibited matter includes weeds nationally targetted for eradication and presently not in NSW.</p>
<p>Control Order: establishes one or more control zones or related measure to prevent, eliminate, minimise or manage a biosecurity risk or impact. Control orders are for managing weeds under approved eradication programs and last for five years (or can be renewed for longer term eradication programs). Weed Control Order 2017 (Part 6 Division 1) under the NSW <i>Biosecurity Act 2015</i> will include weeds that are subject to a Control Order for the purpose of eradication. Further Control Orders will be proposed as needed to address subsequent eradication campaigns.</p>
<p>Biosecurity Zone: aims at containment of a species and provides for ongoing strategic management in a defined area of the state. A Biosecurity Zone specifies the measures that must be taken in the defined area to manage the weed. Species may also be subject to recommended measures tailored by the region either within the zone or outside it.</p>
<p>Mandatory Measures Regulation: requires parties to take specific actions with respect to weeds or carriers of weeds. Mandatory Measures are defined in the regulations and include prohibition on certain dealings - including Weeds of National Significance (WoNS) (Division 8 Clause 29), Parthenium Weed carriers - machinery and equipment (Division 8 Clause 31), and duty to notify of importation of plants into the state (Division 8 Clause 30). Mandatory Measures relevant to the region are listed in Appendix 1.</p>
<p>General Biosecurity Duty (GBD): the purpose of the GBD is to manage the spread and/or impact of all weeds that pose a biosecurity risk (2.4.1 above provides more detail). The GBD is in addition to any requirements included in a Control Order, Biosecurity Zone or other instrument made under the Biosecurity Act. For priority weeds, outcomes to demonstrate compliance with the GBD are detailed in Appendix 1 of this plan.</p>
<p>Biosecurity Direction: an Authorised Officer may issue a Biosecurity Direction to a person or class of persons, if the officer reasonably believes it is necessary for any of the following:</p> <ul style="list-style-type: none"> • to prevent, eliminate or minimise a biosecurity risk • to prevent, manage or control a biosecurity impact • to enforce any instrument under the Biosecurity Act
<p>Biosecurity Undertaking: is a written undertaking by a person, accepted by an authorised officer. It must specify the measures a person has agreed to implement to remedy a contravention, likely contravention, or suspected contravention of the Act and when those measures must be implemented by. It is not an admission of guilt.</p>
<p>Emergency Order: may be issued to respond to a current or imminent biosecurity risk that may have a significant impact.</p>

Table 2.1: Tools of the Biosecurity Act 2015

2.4.3 Enforcing the Biosecurity Act

NSW Department of Primary Industries (DPI) administer the Biosecurity Act and determine the weed species covered by regulatory tools such as Prohibited Matter, Control Orders and Biosecurity Zones.

Local Control Authorities (local councils and Country Councils) are responsible for enforcing weed legislation. This includes such activities as:

- conducting weed inspections on public and private property
- inspecting and controlling weeds in high risk pathways and sites
- providing education, training and resources for both the public and staff in relation to weed management
- administering and ensuring compliance with any of the above regulatory tools
- responding to breaches of the Act
- notifying and reporting on weed activities to the Biosecurity Information System (BIS)

Authorised Officers under the *Biosecurity Act 2015* are able to exercise all functions specified in the Act to enforce the Act and its regulations, including the regulatory tools covered in Table 2.1. Authorised Officers are appointed by the Secretary of the Department of Industry or their delegate. Local Control Authority Weed Officers will be appointed as Authorised Officers under the *Biosecurity Act 2015* be their Local Control Authority. That appointment will allow the officers to exercise the functions of an Authorised Officer for weeds within the area of operation of their Local Control Authority.

The primary focus of this plan is to encourage and work with the community and landholders to achieve weed management objectives. Education, extension and use of biosecurity undertakings reinforce the concept of the General Biosecurity Duty and establish a cooperative approach to local and regional weed management.

Monitoring and compliance for weed management in the region will focus primarily on weeds listed in Appendix 1 to this plan. For these high risk weeds, prompt and responsible action is essential to avoid significant impacts on other landholders, industry and the environment.

Box 2: Agreed standards for weed management

In terms of regulation the Regional Strategic Weed Management Plan plays an important role in articulating the shared responsibility principle of the *Biosecurity Act 2015* (the Act) and communicating weed control obligations. Although the plan is not a regulatory document in the traditional sense, it provides information to enable people to effectively discharge their obligations on the Act, including their General Biosecurity Duty (GBD).

The GBD requires that all land managers and users ensure: *as far as is reasonably practicable, that the biosecurity risk is prevented, eliminated or minimised*. It does not prescribe how these outcomes are achieved. For this reason the plan does not include prescriptive measures for landholders and users to discharge their GBD. The plan focuses on the outcomes to be achieved, allowing for different measures to achieve the same outcome.

While not technically a Regulation, the plan links the key elements of *Knowledge, Risk, Practicality* and *Outcomes* for discharging the GBD.

3. Weed Management in the Region

3.1 Geographic & Demographic Landscape

The Northern Tablelands region is situated in northern inland New South Wales and includes the Local Government Areas of Tenterfield, Glen Innes-Severn, Armidale Regional, Uralla, Walcha and Inverell covering an area of approximately 40,000 km² with a population of around 72,000.

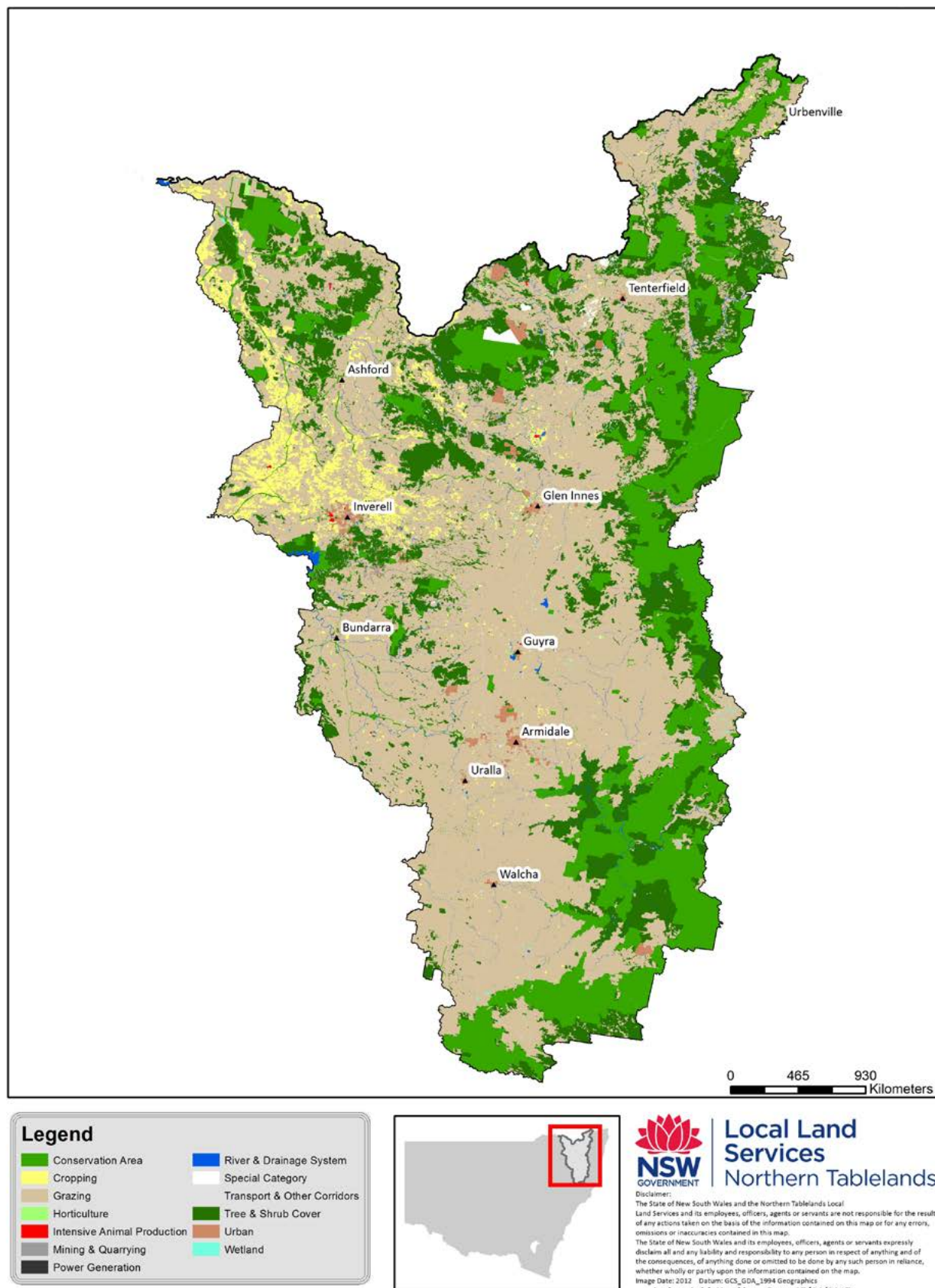
The region has a diverse climate, ranging from temperate to sub-tropical, with considerable differences in climate between the east and the west, and great variety in its landforms, hydrology, vegetation, and soils. Natural resources and land use in the region reflect climatic and geographic influences. Grazing predominates as the agricultural land use, with cropping occurring in the north- west of the region. Mixed farming, horticulture, viticulture and other agricultural enterprises add to the regional diversity.

Map 1: Northern Tablelands Local Land Services Region



The map below summarises the land use patterns for the Northern Tablelands Local Land Services area. The region has the highest carrying capacity in NSW, with the most cattle and the fourth highest number of sheep of any LLS region of NSW

Map 2: Land use patterns in the NT LLS area.



3.2 The Impact of Weeds

The negative impacts of weeds are well recognised. It has been estimated that the total annual economic cost of weeds to Australia is over \$4 billion.

The economic impact of weeds on nature conservation, tourism and landscape amenity is thought to be of a similar magnitude. Weeds also impact Aboriginal connection to country and the ability to undertake cultural activities.

Many weeds also affect human and animal health causing allergies, dermatitis, asthma and poisoning. Weeds can also detract from the aesthetic and recreational value of natural areas for the broader community.

Weeds affect and are affected by the diverse array of rural infrastructure including Travelling Stock Reserves; roads; utility easements such as water, electricity and phone lines; fire control/breaks and general urbanisation of the landscape. Limiting the spread of weeds, particularly managing new incursions, is a major challenge in the Region.

3.2.1 Agriculture

Weeds reduce the quality and quantity of Australia's agricultural, horticultural and forestry products, affecting both industry and consumers. Weeds invade crops and pastures and can harm livestock.

They aggressively compete for water, nutrients and sunlight. The negative agricultural economic impacts of weeds are well documented and include:

- Competition with pastures leading to reduced stocking capacity and erosion.
- Toxicity to stock.
- Increased stock mustering costs.
- Contamination of produce.
- Increased management costs arising from the use of physical, mechanical and control methods.
- Obstruction of water delivery infrastructure.
- Disruption of normal operation of farm machinery.

There are a wide range of agricultural weeds impacting in the Northern Tablelands that vary in effect and importance geographically across the region.

3.2.2 Environment

Weeds have a major impact on biodiversity conservation, endangered species and ecological communities through reducing species refuge sites, disturbing remnant vegetation and wildlife corridors and depleting native seed banks. Their presence contributes to management issues such as poor water quality, overgrazing and increased salinity, while impacting on heritage and cultural values.

Many weeds disrupt the aquatic environment by covering water surfaces, reducing light penetration and decreasing dissolved oxygen, which lead to a decline in fish numbers and overall health of the aquatic ecosystem. Weeds can impede stream flows, increase sedimentation, alter hydrological regimes and increase flooding frequencies.

With extensive areas of land managed for conservation, including World Heritage Areas, invasive weeds are considered among the most serious threats to the region's natural environment in the region.

3.2.3 People

Weeds can cause a range of human and animal health problems. Many common weeds such as Rye grass (*Lolium sp.*) and Privet (*Ligustrum sp.*) cause asthma and other respiratory problems, especially in children and people with existing ailments. Some weeds can cause skin irritation and some, including garden escapes are poisonous.

In Northern Tablelands, the threat of a Parthenium weed (*Parthenium hysterophorus*) incursion is particularly relevant in this regard.

Aquatic weeds can create a safety hazard, for example people mistaking floating vegetation carpets for solid ground. Aquatic weeds also interfere with recreational activities (such as swimming and canoeing) and reduce the aesthetic value of lakes and streams.

3.2.4 Urban and Peri-Urban Landscapes

Urban and peri-urban areas are expanding in the region, increasing control issues associated with multiple landowners. Disturbances due to landscape modification, increased nutrients and changes in hydrology produce favourable environments for the introduction of many weed species. Increasingly, weed control is considered an essential maintenance component of road, rail and utility easements. Natural assets, such as open spaces are particularly vulnerable to weed invasions and the presence of weed species threaten many Aboriginal and contemporary cultural sites.

Garden plant introductions are the dominant source of new naturalised plants and weeds in Australia. Of the 2779 introduced plant species now known to be established in the Australian environment, 1831 (66%) are escaped garden plant species². Invasive garden plant species – both introduced and native species outside their natural range – are by far the largest source of environmental weeds (weeds which impact on natural biodiversity), comprising 72% of the 1765 listed environmental weeds.

3.3 Risks and Emerging Issues

There are several key risks and emerging issues confronting weed management in the Northern Tablelands region, including:

- The high livestock production landscape and associated movement of agricultural product in and out of the region means that the Northern Tablelands region is at risk of the introduction of invasive weed species through the movement of machinery, livestock, commodities and other goods.
- The proximity to a diverse range of biophysical and institutional landscapes - Queensland, the coastal environment and the western slopes and plains means that there is a wide variety and potential source of new weed incursions to the region.
- Finding a balance between profitable agricultural production and the maintenance or improvement of natural ecosystems means that there may be trade-offs in weed management priorities.
- Climate variability and the projected impacts from climate change means that land managers may need to deal with the spread of new or different weeds.
- The extensive crown and public land estate within the region including National Parks and 47,000 hectares of Travelling Stock Reserves puts significant responsibility on public land managers to fulfil their General Biosecurity Duty obligations.
- An increasing trend for properties owned by absentee landholders is resulting in less responsive weed management in some areas.
- The new weed governance arrangements arising from this plan and new legislative requirements through the *Biosecurity Act 2015* means new challenges in communication and awareness for community, land managers and Local Control Authorities.
- The limited public resources assigned to weed management means an ongoing commitment to weed prioritisation to ensure effective resource allocation in the public interest.

The solutions to weed related management problems are generally well known and are being implemented to varying degrees across the region. The challenge is to target resources to programs with the greatest potential for improvement and to make the most of the knowledge and experience of regional communities.

3.3.1 Climate Change

A potential change in the distribution and spread of weeds may be driven by climate change. According to the report *Climate Change and Pest Threats to the NSW Northern Tablelands* produced by the CSIRO (Kriticos et al., 2016), a warming climate is allowing the spread of pests, diseases and disease vectors into new areas. However, the complexities make it difficult to predict the impacts on primary production and the environment. Combining this complexity with the uncertainty of climate projections means that modifying surveillance frameworks will be the first and most important step for protecting against new or more severe incursions of weeds, pests and diseases.

The likely effect of climate change on weed distribution and minimising the impact of invasive species on biodiversity in future climates is a key objective of the National Biodiversity & Climate Change Action Plan.

The Regional Weed Committee, over the life of the RSWMP will continue to monitor the research and effects of climate variability and be adaptive to any such changes that may affect our environment and responsibility in regard to weed management and control in the Northern Inland region.

²Groves et al., 2005; Beeton et al., 2006).3.3.1 Climate Change

3.4 Recent Strategic Weed Management in the Region

The Northern Tablelands has a strong history of strategic weed planning, previously governed by the Northern Inland Weeds Advisory Committee (NIWAC) across the North West and Northern Tablelands regions.

Existing information developed as part of the NIWAC Weeds Action Program (WAP) 2010 – 2015 have been utilised in developing the RSWMP and in updating versions as part of the WAP 2015-2020.

The suite of documents together with those prepared in year two of WAP 2015-2020 will be consolidated into a Northern Tablelands Regional Weed Committee WAP Management Directory 2017 -2021, incorporating the following:

- NTRWC Weeds Action Business Plan and Participant Agreement 2015 – 2020;
- NTRWC Monitoring, Evaluation, Reporting and Improvement (MERI) Plan 2017 – 2021;
- NTRWC Communications Strategy 2017 – 2021;
- NTRWC Weed Incursion Plan 2017 – 2021;
- NTRWC Rapid Response Plan 2017 – 2021;
- NTRWC High Risk Pathways & Sites Management Plan 2017 – 2021;
- NTRWC Regional Inspection Plan 2017 – 2021 and;
- NTRWC Weed Officer's Educational Pathway Plan 2017 - 2021

These plans set out the strategies and mechanisms that consolidate the partnership between members to undertake and implement the NSW Weeds Action Program. This allows for the Local Control Authorities to meet their obligations under the NSW Invasive Species Plan 2015 -2022, the NSW Weeds Action Program 2015 - 2020 and the *Biosecurity Act 2015*.

3.5 Community Involvement

For this plan to succeed it is essential that all programs and related activities continue to be based on partnerships with a wide range of stakeholders. Collaboration with landholders/managers, community and government is key to its effective development.

Best practice management will be promoted, including targeting specific local areas and encouraging landholders to work together in groups to undertake integrated control programs. Activities may include events to raise awareness, to empower and to up-skill e.g. field days/skills training days and engagement with local Landcare groups. Input will be sought with preparing co-ordinated local invasive weed management plans, technical support where applicable and assistance with on-ground control programs at local and regional levels.

Community involvement will include:

- Increasing the capacity and capability of the community in biosecurity activities by leading and facilitating targeted education and information programs;
- Providing advice to industries and the general community about how they can meet their biosecurity obligations;
- Developing programs to actively manage priority established invasive weeds;
- Developing and promoting easy to use technologies for the reporting of invasive weeds, and;
- Developing a Communication Strategy that delivers clear and consistent messages and communications to a wide range of internal and external stakeholders in relation to weed species management.

4. Weed Risk - Assessment and Prioritisation

4.1 Weed Management Prioritisation

The Northern Tablelands Regional Weed Committee in consultation with technical experts has identified a number of invasive plants of particular concern in the region. The biosecurity impacts of these weeds varies across the region, so an objective and repeatable risk assessment was required, to ensure limited resources are used wisely and management requirements are appropriate to the risk. This section outlines the principles and assessment process used to prioritise weeds for management across the region.

Appendix 1 of this plan identifies state level priority weeds for the region and regional priority weeds to which recommended measures to discharge the General Biosecurity Duty" have been applied. Appendix 2 lists other priority weeds identified as a further focus for weed management in the region.

4.1.1 Weed Management Prioritisation

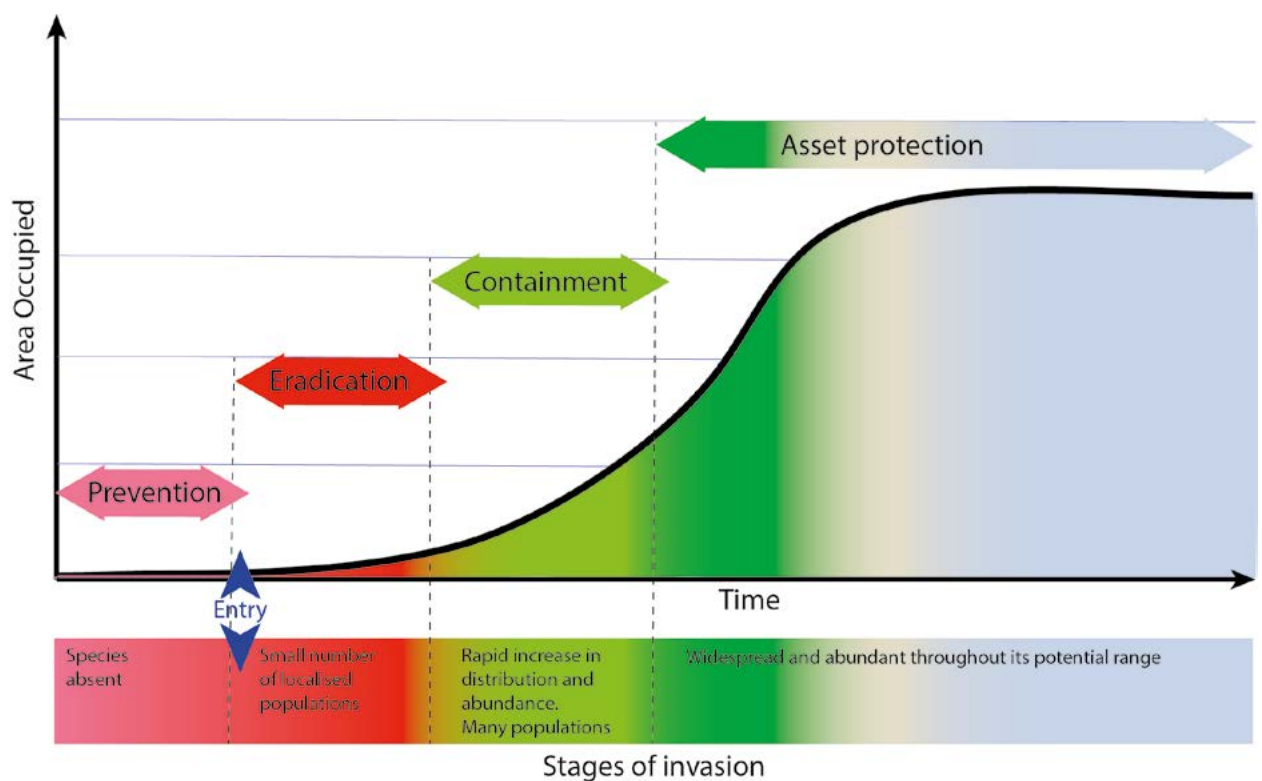
The generalised 'Weed Invasion Curve' (Figure 4.1) illustrates the invasion process for weeds from arrival to widespread establishment (after Chippendale (1991); Hobbs and Humphries (1995); and Environmental Weeds Working Group (2007), sequentially) and shows that the effort and resources required to control a weed increases with time and area occupied. Managing weeds earlier rather than later is more cost-effective, and this principle is a foundation of the weed prioritisation process used in this plan.

Consistent with the NSW Weed Risk Management system and the Invasive Species Plan weed management can be grouped into four management objectives:

1. **Prevention:** implementing measures with the objective of preventing the arrival of weed species that are likely to have a significant impact and are not known to be present.
2. **Eradication:** the detection and permanent removal of weed species that are likely to have a significant impact and are known to be present in small localised populations. The aim is to eradicate the weed before it can establish self-sustaining populations. The permanent removal includes all individual plants and propagules from a defined area. There must also be little or no likelihood of re-invasion occurring.
3. **Containment:** preventing the spread of weed species beyond a predefined area. At this stage the weed has established self-sustaining populations but is not yet established across its potential range. Eradication is not considered viable with current techniques and resourcing and the aim is to prevent the ongoing spread of the weed species.
4. **Asset Protection:** preventing the spread of weed species to high value assets or reducing the impact on the high value asset for weeds already present. By now the weed is well established and widespread. Assets to protect typically have high economic, environmental and/or social value.

This last objective represents an important shift in the focus, from controlling the weed species to limiting the impact it may have on important assets.

Using the NSW Weed Risk Management system for prioritisation ensures that recognised weed management principles are incorporated in the prioritisation process.



4.1.2 NSW Weed Risk Management System

The NSW Weed Risk Management (WRM) system provides a standard, nationally accepted and transparent process to help make decisions about the prioritisation and declaration of weed species. The NSW WRM system was developed in 2009 by NSW DPI to assist weed managers to determine priorities for weed management at State, regional and local levels and has been used as a basis for weed declarations under the NSW *Noxious Weeds Act* 1993. Similar systems are used across Australia, all conforming to the Australian and New Zealand Standard handbook "National Post-Border Weed Risk Management Protocol".

The Weed Risk Management system considers two components for prioritising weeds for management action:

1. A weed risk assessment
2. An assessment of the feasibility of coordinated control

A score for weed risk is determined through a scoring a series of parameters (invasiveness, impacts, potential distribution) and likewise a score for feasibility of co-ordinated control (control costs, persistence, and current distribution). An assessment of these components provides a management objective that reflects the principles of effective weed management, and links with the objectives of the *Biosecurity Act 2015*.

4.2 Regional prioritisation process

A regional weed prioritisation process was undertaken using the NSW Weed Risk Management (WRM) system. This was carried out using an expert regional panel on behalf of the Northern Tablelands Regional Weed Committee. The panel brought together practitioners with long term on-ground experience with high priority species, including local experts previously involved in the weed advisory committees.

Weed Risk Management system assessments were undertaken at the regional scale to ensure that the outcome reflected regional conditions. Where there was significant variation in weed risk or weed distribution, these assessments were conducted at a sub-regional level to determine if a different management response was warranted for the sub regional area.

Quality assurance was undertaken by the Technical Subcommittee of the State Weeds Committee. The Technical Subcommittee reviewed the Weed Risk Management assessments, management categorisation and objectives, and the outcomes to demonstrate compliance with the GBD developed for the region. This ensured consistency and alignment with the Weed Risk Management system and the *Biosecurity Act 2015*.

The Technical Subcommittee also provided guidance to regional weed committees on appropriate outcomes to demonstrate compliance with the GBD. The management categories used in the assessment are summarised in Table 4.1.

In identifying weed management priorities other considerations such as expert opinion and spatial information on weed distribution were taken into account to fill information gaps or check the validity of the risk management system assessments results.

The *Biosecurity Act 2015* and Regulations provide specific legal requirements for state level priority weeds and high risk activities.

Category	Objective	Weeds in this category...
Prevention	To prevent the weed species arriving and establishing in the Region.	These species are high risk (highly invasive and high threat) and have a high likelihood of arriving in the region due to potential distribution and/ or an existing high risk pathway. These species are not known to be present in the region.
Eradication	To permanently remove the species and its propagules from the Region. OR to destroy infestations to reduce the extent of the weed in the region or a part of it with the aim of local eradication (extirpation).	These species have a very high weed risk and very high feasibility of coordinated control. These species are present in the region to a limited extent only and the risk of re-invasion is either minimal or can be easily managed.
Containment	To prevent the ongoing spread of the species in all or part of the region.	The species have a limited distribution. Regional containment strategies aim to prevent spread of the weed from an invaded part of the region (core infestation), and/or exclude the weed from an uninvaded part of the region (Exclusion Zone).
Asset Protection	To prevent the spread of the species to key sites/assets of high economic, environmental and/or social value or to reduce impact on these values if spread has already occurred.	These weed species are widespread and unlikely to be eradicated or contained within the wider regional context. Effort is now focussed on reducing threats to protect priority high value assets.

Table 4.1 provides a summary of the categories and the groups of species to which they apply.

4.2.1 Priority weed list for the region

The regional prioritisation process culminated in the identification of priority risk weeds and the development of the regional priority weed list (Appendix 1). The list also identifies recommended measures as to how a person may discharge the General Biosecurity Duty for those species. Management requirements for weeds, whether that includes specific regulatory measures (state level priorities) or recommended measures to discharge the General Biosecurity Duty (regional priority weeds), are listed also in Appendix 1.

The measures applied to a particular weed will depend on factors such as the behaviour and ecology of the weed, the land use(s) in which it occurs, the size of the infestation, potential pathways for re-infestation and others. These factors have been taken into account in determining the suite of recommended measures and strategic responses for the priority weeds listed in Appendix 1 to this plan. As with all components of this plan, these obligations apply to all private and public landholders in the region.

4.2.2 Other regional weed lists

A range of plans and programs exist to guide management of widespread weeds and these are outlined in the previous Section. A review of these, including the risk assessment for this plan, has led to the collation of a number of further weed lists relevant to regional weed management. These are made up of species for which a consistent and/or collaborative approach to management will provide the best outcome across the region, consistent with the weed reforms.

Appendix 2 outlines other priority weeds identified by the committee (in addition to the priority weed list) as a further focus for weed management and plan implementation in the region. Weeds identified within Appendix 2 are also subject to the General Biosecurity Duty and have been identified to highlight their importance, risk and/or implementation focus.

The priority weed list for the region (Appendix 1) and the other regional weed lists (Appendix 2) may be amended as necessary in accordance with state level reviews and the regional review process outlined in Section 7.

4.2.3 General Biosecurity Duty (GBD)

A General Biosecurity Duty (GBD) applies to all weed species regardless of whether they are listed in this plan or not.

For weeds, the GBD means that any person dealing with plant matter must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable). 'Dealing' has a broad definition in the Act and the GBD applies equally to a carrier of plant matter and to any person who knows or ought to know of the biosecurity risks associated with the activity. In general if you deal with or carry plant matter as part of a commercial, professional, volunteer or recreational activity or lifestyle, you would be considered to know or ought to know the risks. Plant matter includes plants, parts of plants and seeds. Biosecurity is everyone's responsibility and further explanation of the GBD is available from the Northern Tablelands Local Land Services website and local offices, Local Government and NSW DPI.

Weeds considered to be having an adverse risk but not listed in this plan, will generally be addressed through extension to ensure the landholder understands the biosecurity risk posed by the weed and that the General Biosecurity Duty applies. An authorised officer may accept a Biosecurity Undertaking from the landholder detailing actions and timeframes to reduce the risk. If the landholder still fails to address the problem a Biosecurity Direction can be issued and will provide more detail on the actions the landholder must take to manage the weed. Weed control may be enforced in these situations whether or not there is a direct reference to the weed in this plan provided there is a biosecurity risk.

4.3 Regional Management Responses

The primary focus of this plan is on encouraging and working with the community and landholders to achieve weed management objectives. Monitoring and compliance for weed management in the region will focus primarily on weeds listed in Appendix 1 to this plan. For high risk weeds prevention and early intervention is the most effective and efficient approach and timing is crucial. Prompt and responsible action is essential to avoid significant impacts on other landholders, industry and the environment.

Local Control Authorities (usually Local Councils and County Councils) are responsible for the implementation of priority weed control including enforcing the *Biosecurity Act 2015*, conducting inspections and providing education, training and resources for both the public and for staff.

Authorised officers under the *Biosecurity Act 2015* enforce the act and its regulations, including the regulatory tools covered in Table 2.1. Authorised Officers appointed by the Secretary of the Department of Industry (or their delegate) will be able to exercise all of the functions of an authorised officer specified in the Biosecurity Act. Local Control Authority Weed Officers will be appointed as Authorised Officers under the *Biosecurity Act 2015* by their Local Control Authority. That appointment will allow the officers to exercise the functions of an authorised officer for weeds within the area of operation of their Local Control Authority.

4.3.1 Supporting weed management in the region

Consistent with the guiding principles for weed management listed in Section 6, increasing community capacity through awareness, education and training is an important means of supporting effective weed management in the region. Local Control Authorities, Northern Tablelands Local Land Services and other key stakeholders also provide a range of advisory services to landholders and will help improve awareness and link landholders to appropriate material and training.

The committee, in collaboration with key stakeholders, will target investment and resources to achieve regionally consistent management of weeds. Investment will focus primarily on prevention, eradication and other high leverage activities and will be consistent with the guiding principles for weed management (Section 6.1).

Supporting this RSWMP, there will be further documents developed such as best practice guidelines and standards that contain more detailed information to support community in discharging their GBD.

5. Strategic Direction

5.1 Overview

This Section outlines actions that will be put in place to achieve the four goals of the Regional Strategic Weed Management Plan.

The goals, outcomes, objectives and strategies for this plan align with those of the NSW Biosecurity Strategy and the Northern Tablelands Local Strategic Plan.

Our strategies, actions and associated regional measures of performance (see Section 5.3), are based on the best available information and credible science with direct relevance to weed biosecurity. The strategies and actions provided in Table 5.1 summarise the strategic action plan for achieving the four goals.

The focus of actions in Table 5.1 is outlined below for each goal.

Goal 1: Responsibility for weed biosecurity is shared by all people of the Northern Tablelands

Actions focus on a whole of community approach to weed management, with an emphasis on:

- building community capacity
- building stronger partnerships
- fostering a shared responsibility
- increasing awareness

Goal 2: Weed biosecurity supports profitable, productive and sustainable primary industries

Goal 3: Weed biosecurity supports healthy, diverse and connected natural environments

Actions focus on weed biosecurity to protect the environment, the community and sustainable economic growth. Actions for Goals 2 and 3 have been combined as weed management efforts provide multiple outcomes across natural environments and primary industries.

The emphasis is on:

- preventing new weeds from entering the region
- eradicating or containing the spread of new weeds that do establish
- managing widespread weeds where the benefits are greatest

Goal 4: Weed biosecurity is supported by coordinated, collaborative and innovative leadership

Actions focus on consistent and contemporary approaches to implementing this plan, with an emphasis on:

- providing good governance and leadership to support a collaborative approach
- supporting and delivering the weed biosecurity reforms for NSW
- implementing risk based systems across all tenancies in a co-ordinated manner
- supporting innovation by embracing continuous learning, information systems, research and technology.

5.2 Actions

Strategies and actions for each goal are presented in Table 5.1 below. How different parties are involved in implementing actions and this plan is outlined in Section 6.

Table 5.1: Goals, Strategies and Actions of the Northern Tablelands Regional Strategic Weed Management Plan

Goal 1:	
Responsibility for weed biosecurity is shared by all people of the Northern Tablelands	
Strategies	Actions
1.1 Promote weed management and behavioural changes within the community	<p>1.1.1 Develop and implement a strategic marketing and communication plan that promotes delivery of weed management on the Northern Tablelands.</p> <p>1.1.2 Develop products promoting the profile of weed management on the Northern Tablelands, including promotional campaigns and events, sponsorship, media releases, social media, web sites, e-newsletters and publications and brochures.</p>
1.2. Build stronger partnerships that support weed management	<p>1.2.1 Develop partnerships that support tenure neutral weed management.</p> <p>1.2.2 Foster networks, alliances and Aboriginal engagement that support communities and stakeholders in their delivery of weed management</p> <p>1.2.3 Develop and implement mechanisms to protect biodiversity and support management of weeds on non-productive land.</p>
1.3 Enhance community-wide capacity in sharing responsibility for weed management	<p>1.3.1 Develop, promote and assist with interpretation of information outlining stakeholder roles, obligations and implications in weed management.</p> <p>1.3.2 Enhance existing communication networks to increase effective dissemination of information and understanding of shared responsibility and a whole of community approach to weed management.</p> <p>1.3.3 Enhance education, training and community based programs that increase community capacity to manage priority weeds</p>
Goal 2:	
Weed biosecurity supports profitable, productive and sustainable primary industries	
Goal 3:	
Weed biosecurity supports healthy, diverse and connected natural environments	
Strategies	Actions
2-3.1 Improve surveillance, reporting and tracing systems for weeds	<p>2-3.1.1 Improve surveillance, reporting and tracing for weeds:</p> <ul style="list-style-type: none"> Widen implementation of early detection by encouraging partners to become involved in the High Risk Pathways and Sites inspection program and report via BIS Develop and/or implement early detection tools, systems and services Build community capacity to assist Undertake coordinated surveillance activities for high risk species. <p>2-3.1.2 Support State-wide processes in development of more efficient ways of demonstrating proof of freedom from weeds.</p>

Goal 2:	Weed biosecurity supports profitable, productive and sustainable primary industries
Goal 3:	Weed biosecurity supports healthy, diverse and connected natural environments
Strategies	Actions
2-3.2 Improve prevention, preparedness and response to weed emergencies	<p>2-3.2.1 Improve cross-jurisdictional collaboration on consistent and effective approaches to preventing establishment of new weed species.</p> <p>2-3.2.2 Manage high risk pathways, using strategic intentional surveillance, region-wide and consistent industry codes, education and enforcement mechanisms.</p> <p>2-3.2.3 Improve prevention and response to weed biosecurity emergencies through improved identification processes, improved communication and reporting networks, and rapid responses to management of new high priority weeds.</p>
2-3.3 Eradicate or prevent the spread of new weeds of new weeds	<p>2-3.3.1 Develop standardised and consistent planning for:</p> <ul style="list-style-type: none"> • Weeds listed in Appendix 1 to this plan • New weed incursions, including rapid response plans and associated cost sharing arrangements <p>2-3.3.2 Work with other jurisdictions to standardise weed biosecurity arrangements across regional and State borders.</p> <p>2-3.3.3 Ensure management occurs for high priority weeds in alignment with State, Regional or sub-regional objectives</p>
2-3.4 Contain and manage impacts of widespread weeds	<p>2-3.4.1 Develop and promote integrated land management practices and best practice weed management to minimise the spread and reduce the impact of established weeds.</p> <p>2-3.4.2 Support the ongoing development and coordination of new and existing cooperative programs for reducing or controlling the current extent of priority weeds.</p> <p>2-3.4.3 Actively manage high priority and wide spread weeds which threaten key sites and assets in alignment with state, regional or sub-regional objectives.</p> <p>2-3.4.4 Continue to contribute to new and existing State and national arrangements for managing established weeds.</p>
2-3.5. Support and embrace weed science, technology and research	<p>2-3.5.1 Document invasive weed species research priorities in collaboration with government, industry, research providers, the Aboriginal community, and the wider community and report these to the State Weeds Committee.</p> <p>2-3.5.2 Strengthen research partnerships and actively participate the development of new technologies and innovative approaches to the management of weed risks and implement</p>
2-3.6 Assess and respond to changing risks under a changing climate	<p>2-3.6.1 Use predictive modelling (e.g. Weed Futures, BioClim, ANUclim) to identify the likely weed species and the environmental, social and economic values that will be vulnerable to invasive weeds under a changing climate.</p> <p>2-3.6.2 Implement actions that facilitate adaptation to high risk invasive weeds under a changing climate.</p>

Goal 4: Weed biosecurity is supported by coordinated, collaborative and innovative leadership	
Strategies	Actions
4.1 Provide governance and leadership that supports collaborative, effective and efficient weed management	<p>4.1.1 Work in a collaborative partnership with all stakeholders to implement this plan.</p> <p>4.1.2 Support the functions and business needs of the State Weeds Committee.</p> <p>4.1.3 Support a coordinated regional approach to strategic and investment planning; monitoring, performance evaluation and reporting; weed risk assessment review and update; and weed emergency management preparation, response and recovery processes.</p>
4.2 Adopt adaptive, contemporary planning and processes	<p>4.2.1 Develop the components of the Regional Business Planning Framework that underpins the implementation of this plan.</p> <p>4.2.2 Work with stakeholders to develop and update local implementation plans using best available standards, local knowledge, research and technology, as required.</p> <p>4.2.3 Develop new and update existing Regional and Sub-regional weed risk assessments where and when required.</p> <p>4.2.4 Share information with other jurisdictions and regions on approach, progress and innovation with weed management.</p>
4.3 Develop a regional invasive weed knowledge base and information system that supports state standards	<p>4.3.1 Support the development and adoption of standard regional data (including weed mapping) capture, storage, record keeping and retrieval processes.</p> <p>4.3.2 Encourage wider use of the BIS to improve weed distribution and impacts data and management information.</p> <p>4.3.3 Ensure that weed information and research data are readily available to stakeholders for use in research, updating management plans and reporting.</p>
4.4 Develop consistent systems for monitoring, evaluating and reporting on the effectiveness of weed management	<p>4.4.1 Develop and implement indicators that assess the performance of this plan and progress towards achieving strategic outcomes.</p> <p>4.4.2 Develop and implement standard local monitoring and reporting protocols that support region and State-wide needs.</p> <p>4.4.3 Use the information collected from research, local monitoring programs and the BIS to inform an adaptive management approach to Northern Tablelands weed management projects, plans, programs, policies and reforms.</p>

6 Implementation

This chapter covers how the plan will be implemented. It includes guiding principles for weed management and implementation and roles and responsibilities for stakeholders and customers.

6.1 Governance

This plan will be implemented in collaboration with key stakeholders, the community, investors and Northern Tablelands Local Land Services. Collaboration and building capacity of land managers is central to plan implementation. By working collaboratively and engaging with all sectors – public, private, non-profit, individuals and community groups – effective and lasting solutions to shared problems can go beyond what any sector can achieve on its own.

6.1.1 Local Land Services and the Regional Weed Committee

The Northern Tablelands Regional Weed Committee and its member organisations will facilitate implementation of this plan with executive support from Northern Tablelands Local Land Services and overarching guidance from the local board. Figure 1.3 shows the relationship between the committee and the local Board.

The first term of the committee focused on the development of this plan, and the role of the committee is likely to evolve as the focus shifts to implementation following approval of the plan.

The anticipated role of the committee in implementation is outlined below:

- Promote weed policy, risk assessments, best practice and control outcomes to member organisations and community
- Oversee the implementation of the plan on a region-wide perspective, using committee expertise and best available knowledge, research and technology
- Facilitate development and implementation of regional communication, education, training and awareness programs that are consistent with the Regional Strategic Weed Management Plan
- Promote effective co-ordination of weed management across agencies and tenure, including appropriate resource and information sharing between member organisations
- Identify opportunities for funding and delivery of priority projects and synergies from collaboration
- Identify information and research needs and appropriate collaborative actions
- Oversee measurement and evaluation of weed control activities in the region to ensure it is consistent with the plan and continues to inform management actions and planning
- Monitor, evaluate and report on outcomes of committee collaborative planning and delivery processes
- Advise the NSW State Weeds Committee on new weed risks and other strategic weed matters in the region.
- Liaise with neighbouring Regional Weed Committees, especially with respect to any significant incursions and potential movement of priority weeds from one region to another.

6.1.2 Guiding principles for implementation

The following principles will be used to guide weed management planning and implementation and are consistent with the weed reforms and leading practice:

- Effective stakeholder collaboration and shared responsibility are essential to effective weed management.
- Behavioural change and increasing community capacity are important to effective weed management.
- Prevention and early intervention are the most effective weed management tools.
- Causes of weed invasion and spread are managed wherever possible, not just the symptoms.
- The biology and ecological requirements of weeds, including mechanisms and pathways for spread are considered in weed management.
- Innovation in weed control and management is encouraged.
- Regular monitoring, evaluation and improvement are incorporated in weed management programs.
- Weed management is an integral part of land management. Land management practices and the timing of, are critical to the prevention and reduction in spread and impact of weeds.
- Weeds are managed in a strategic and co-ordinated manner across the landscape. Assessing and managing weed risk at a landscape and multi species scale (where appropriate) can lead to significant efficiencies in use of resources and achievement of strategic outcomes.
- The best available science, expertise and tools are utilised in weed management decision making.



6.2 Regional plans and processes supporting implementation

A range of plans and processes support implementation of this plan and these were outlined in Figure 2.2. The committee regards development of these business planning components as important to ensuring successful implementation and their completion is a high priority for the committee. The Northern Tablelands Regional Weed Committee will oversee development of these processes in the region following plan approval, in collaboration with Northern Tablelands Local Land Services and key stakeholders.

A key element of this plan is a collaborative and coordinated approach to weed management across all tenures. Business planning components will include policies, processes and procedures for collaborative planning and action with key stakeholders in the region. Business planning components will assist member organisations and key stakeholders with translating this plan into local area priorities, actions, collaboration and partnerships that integrate weed management across tenures and stakeholders in the region.

Some components already exist or will be developed based on a range of existing stakeholder policies, plans and procedures. Other components will be completely new such as a regional communication and marketing plan, and procedures for amendments to weed listings in Appendix 1 and 2 of this plan.

The role of these plans and processes in supporting implementation is outlined briefly below:

- Northern Tablelands Regional Weed Committee coordination - to ensure clear stakeholder roles and responsibilities and good governance. May also cover delivery of business planning components, including the review and update of weed risk assessments as required.
- Local implementation roles and responsibilities - to ensure consistency and clear roles and responsibilities in the delivery of local weed management.
- Processes for integrating regional delivery and projects - to ensure efficient and effective delivery.
- Compliance planning - to support an integrated and consistent approach to meeting regulatory obligations across the region.
- High risk weed incursion planning - to address surveillance and identification of new weed incursions and coordination of regional responses.
- Rapid response planning - to address procedures and actions for response to a new incursion. This will include procedures for the identification, notification and assessment of the threat, and determination of the appropriate course of action to manage a new weed incursion.
- Local control authority planning - to ensure that compliance strategies, standards and service agreements are consistent with this plan and to provide a consistent policy and procedural framework for inspections and enforcement under the *Biosecurity Act 2015* for Local Control Authorities.
- State Guidelines and best practice codes - to support consistency in approach and the capacity to inform state- wide reporting.
- Communication and marketing - to develop a strategic approach to communicating key messages and engaging partners, stakeholders and the broader community.
- Key performance indicator development - to support assessment of this plan's performance measures.
- Monitoring, evaluation, reporting & improvement coordination - to support consistent approaches that allow for reporting at local, regional and state scales.
- Research and development collaboration – to support a collaborative approach to identifying, prioritising and addressing research needs in the region.
- Investment planning – to support an integrated approach to investment in priorities for the region.
- Procedures for review of listings to Appendix 1 and 2 of this plan. Responsibility for amendments to state determined priorities rest with NSW DPI and the State Weeds Committee. The committee will raise any identified issues with changes to listings for state determined priorities via the State Weeds Committee to ensure consistency and alignment.

The suite of documents together with those prepared in year two of WAP 2015-2020 will be consolidated into a Northern Tablelands Regional Weed Committee WAP Management Directory 2017 -2021.

6.3 Delivery Partners

Delivery partners have an interest in delivery of priority actions. This interest spans from being involved in refining priority actions, to further developing processes to address actions, through to participating in their delivery. Broad roles and responsibilities are determined, and responsibilities for specific actions will be agreed following plan approval. As implementation progresses and opportunities for new partnerships emerge, new partners may also become involved.

Resourcing of weed management is unpredictable and will fluctuate, and partners also differ in their capacity to deliver weed management resources. Commitments from partners improve community confidence in action implementation and it is recognised that commitments may be contingent upon availability of resources at a given point in time.

6.3.1 Roles and Responsibilities

A wide range of stakeholders and customers are involved in weed management in the region. This plan recognises the roles of all levels of government, industry, community and community organisations. This plan aims to consolidate these efforts through better coordination and communication between organisations and individuals in the region.

Australian Government

The Australian Government has a role in preventing new weed incursions at national borders, in research and development, funding and national legislation. National agreements also outline the roles and responsibilities of government and industry, in responding to emergency plant, pest and disease incidents and detail how those responses will be funded. These agreements include the Intergovernmental Agreement on Biosecurity, Emergency Plant Pest Response Deed and the National Environmental Biosecurity Response Agreement.

NSW Government

The NSW Government leads the development of policies and strategies that encourage a comprehensive and responsive weed biosecurity system. They also ensure that there is a strong legislative and regulatory framework underpinning the system. The Department of Primary Industries is the lead agency for weed management within the NSW Government, with support by the Office of Environment and Heritage in relation to environmental weed management across NSW.

Key roles and responsibilities for these two agencies include:

- Administration of key legislation relating to priority weeds (*Biosecurity Act 2015* – DPI and *Biodiversity Conservation Act 2016* – OEH).
- Increasing awareness of weeds in industry, key stakeholders and the community.
- Leading and coordinating prevention, preparedness, response and recovery for weed emergencies.
- Developing non-regulatory approaches and incentives to underpin weed management.
- Coordinating diagnostic, surveillance, tracing and monitoring systems for priority species.
- Conducting weed species research in priority areas and collaborating with universities and research providers on priority research initiatives and pest and weed identification.
- Coordinating the delivery of leading practice solutions for weed managers across the state.

NSW DPI leads and coordinates the prevention, preparedness, response and recovery for weed emergencies. This agency also develops and maintains regulatory mechanisms that support weed programs.

The Office of Environment and Heritage is responsible for managing more than 850 national parks and reserves and leads state-wide initiatives to reduce the impacts of invasive species on biodiversity. The Saving our Species program provides for the conservation of threatened taxa across all land tenures under the *Biodiversity Conservation Act 2016*.

Department of Industry - Lands

The Department of Industry - Lands is a business unit of the NSW Department of Industry and administers and manages Crown land, which makes up approximately half the state. DoI-Lands develops, funds and implements invasive species management strategies on land under its direct control. It also supports activities undertaken by community groups and other stakeholders that manage land on its behalf, including community Trusts and Councils.

DoI-Lands incorporates a multi-pronged risk-based approach to managing invasive species on Crown land, including education, extension, project implementation, audit and compliance activities. DoI-Lands is always keen to work in partnership with other stakeholders and agencies to ensure optimal outcomes in the management of invasive species on Crown land.

Office of Environment and Heritage and National Parks and Wildlife Service

The National Parks and Wildlife Service (NPWS – part of OEH) is responsible for managing over seven million hectares of land in NSW. As a public land manager, NPWS works with a range of stakeholders to proactively and strategically manage weeds. NPWS is guided by Regional Pest Management Strategies that identify weed management priorities and programs for implementation on all lands managed by NPWS.

The strategies aim to minimise the adverse impacts of pests and weeds on biodiversity, protected areas and the community by identifying the highest priority programs and focusing on these, ensuring that actions are achievable, and delivering measurable outcomes. The strategies also demonstrate NPWS responsibilities in delivering the NSW Biosecurity Strategy 2013-2021.

Local government

Local government will continue to play a significant role in biosecurity and particularly in the management of weeds. It has an important role to play in engaging local communities, managing public lands and assisting with emergency management.

Local Control Authorities include Local Government and County Councils. In the Northern Tablelands, the New England Weeds Authority is a County Council providing weed control over a large area funded by member councils.

Local Control Authorities are responsible for the implementation of priority weed control including:

- delivering components of the Weeds Action Program throughout the state
- enforcing weed management obligations
- conducting inspections
- controlling weeds on lands managed by the Local Control Authority
- input into weed strategy and policy
- providing education, training and resources for both the public and for staff.

Other Managers of Crown Land and Reserves

A number of organisations and government agencies manage crown land allocated for specific purposes. These include lands reserved for harvesting timber (Forestry Corporation of NSW, a State owned corporation), for environmental and heritage protection, or State infrastructure such as road and rail corridors (Roads and Maritime Services and John Holland Rail Pty Ltd) and corridors for energy infrastructure.

All land managers have an important role in the management of weeds in the region and their role includes the development and implementation of management strategies and the education of the community and other stakeholders.

Aboriginal Land Managers

The role of the Aboriginal community in weed management is consistent with that for other community organisations and the general community, but with cultural factors influencing that management. Aboriginal traditional owners have obligations under traditional law and custom to care for Country, as well as obligations as land owners and managers. This may result in Aboriginal people having priorities for weed management to address threats to cultural sites or threats to an important cultural resource (OEH, 2016).

Throughout the region there are a number of different types of land ownership and management by Aboriginal people and several Indigenous Land Use Agreements are also in place which help clarify obligations of public land managers where Native Title is recognised over the land they manage (OEH, 2016).

Industry

Industry roles in weed management include:

- Implementing and developing industry standards, guidelines and codes of practice.
- Contributing to research programs in priority areas.
- Participation in biosecurity response agreements and cost-sharing arrangements.
- Managing weeds on land and water used for production.
- Managing risks when trading in potential or known weed species used for, or held by, nurseries, pet shops (water weeds), collectors, agriculture, horticulture, aquaculture and biofuels etc.
- Preventing the establishment of weeds, through movement of goods, produce and equipment or related activities such as the disposal of ships' ballast.

Community Groups, Volunteers and Individuals

Community groups and volunteers play an important role in the management of weeds in the region. The Landcare network is one of the larger, more organised community partners involved in regional weed-related issues.

Community groups and volunteers support community engagement and assist in hands on weed management. This includes leading volunteer groups that undertake weed removal and monitoring activities, bush regeneration, biodiversity conservation projects and rehabilitation of aquatic habitats on private and public lands. Building on this foundation to share in responsibilities for weed management, is essential.

Individual community members have an important role to play in helping to minimise the impacts of weeds in the region. The community provides much needed "eyes and ears" on the ground to detect and report new incursions and support eradication. The community also provides crucial support to the actions of responsible authorities, land managers and external funding programs. Likewise programs that build resilience in the natural environment and help reduce the risks from pests, diseases and weeds rely on community participation.

Private land owners and occupiers have roles to play in the ongoing management of established weeds on their own land and in collaboration with their neighbours and the surrounding community. Along with others they have a General Biosecurity Duty under the *Biosecurity Act 2015*.

6.3.2 Lead Organisations

Lead organisations will be assigned to take responsibility for the delivery of actions and performance measures within this plan and will manage and coordinate implementation of components of the plan and associated programs. This will ensure clear responsibilities for plan implementation and will be finalised following plan approval through development of relevant business planning components. Partners will take primary responsibility within their respective areas in the delivery of actions and performance measures. Other government agencies, industry and community will also play a role in implementing this plan to varying degrees.

6.4 Investment

The development of the business planning components identified in section 6.3 should ultimately ensure that investment in Northern Tablelands weed management is effective, efficient and delivers desired outcomes. This plan supports investment planning that provides both short and long term outcomes that reflect achievement of our goals - shared responsibility, sustainable landscapes and coordinated and innovative delivery.

Stakeholders will no doubt continue to deliver their programs according to investor preferences. This plan will support the transitioning of existing investment in local weed management to achieve this plan's goals.

The RWC will play a critical role in sourcing investment, brokering partnerships and facilitating coordination of stakeholder investment to ensure that the region's weed biosecurity needs are met. The committee will provide advice on options for tailoring both new and existing streams of investment so that they best fit the region's new management approaches.

The committee will also facilitate exploration of opportunities for integrating the existing efforts of stakeholders, along with options for stakeholders to work in collaboration on new initiatives. This will be fundamental to implementing this plan's tenure neutral approach, and to meeting the region's GBD. The proactive development of flexible, integrated and effective projects that meet the region's priorities will ensure that the region is "investment ready".

Clear definition of partner roles and responsibilities will be critical to ensuring that stakeholders can continue to satisfy their individual investors, whilst also delivering results that complement and value add to a greater set of outcomes (e.g. coordinated local control authority compliance, high risk incursion and rapid response planning will contribute to broader regional weed biosecurity). The committee has a critical role in this regard.

The committee will work with stakeholders to keep a watching brief on national, state and regional potential investment schemes and opportunities for collaboration. Cross regional networking will be critical to facilitating the leveraging of funding from other sectors.

The Northern Tablelands Weeds Action Program 2015 – 2020 funding addresses the diverse suite of weed species, both present and potential, taking into account the climatic conditions which lead to rapid growth of weed species and seasonal variability across the landscapes in the Northern Tablelands region, and sets in place a 5 year strategy to improve the management of invasive weed species.

WAP1520 funding is provided under an agreement between the NSW Department of Primary Industries and the lead organisation, the New England Weeds Authority. The agreement sets out the roles, functions and obligations of the parties in relation to the project.

Stakeholders receiving funding through the NT WAP1520 include:

- Northern Tablelands Local Land Services.
- New England Weeds Authority (Walcha, Armidale Regional and Uralla Shire Councils).
- Tenterfield Shire Council. Inverell Shire Council.
- Glen Innes Severn Council.

This plan recognises the importance of funding contributions from external investors towards management of typically unfunded projects that bind tenure neutral agencies to ensure success of weed management in the region. These include but are not limited to:

- *NSW Environmental Trust.*
- *Catchment Action NSW.*
- *Landcare.*
- *National Landcare Programme.*
- *Saving our Species Program.*

6.5 Community Engagement and Awareness

Collaboration and building capacity of all land owners is central to the effectiveness of this Plan. By working with people and engaging all sectors of the community – public, private, non-profit, individuals and community groups – effective and lasting solutions to shared problems can go beyond what any sector could achieve on its own.

The Regional Weed Committee in partnership with relevant agencies will identify information and knowledge gaps in the Northern Tablelands community associated with the ability of the community to prevent or respond to new invasive weed incursions.

The plan supports targeted capacity building programs that focus on priority species. Communities differ in their capacity to be involved in weed management so programs will be tailored to meet local knowledge, skills, networks and resourcing needs.

The RWC will also assist with the identification of the need for, and coordination of capacity building programs in priority areas.

As part of the WAP 1520 mandatory documents, the NT Regional Weed Committee Communication Strategy will outline the mechanisms to engage with and build capacity of the community in weed management.

The Committee will also assist in the delivery of the NSW Biosecurity Strategy and NSW Invasive Species Plans.

7. Measuring success and continuous improvement

Measuring and reporting on progress against key performance indicators is important, as are practices that promote reflection and learning to inform our decision making. This section covers how we intend to address and document these aspects of achieving the goals and reviewing our activity and focus.

7.1 Measuring performance

Northern Tablelands Local Land Services has a responsibility to demonstrate to its customers, investors and stakeholders that its strategies are sound and effective. Underpinning all strategies, programs and systems will be a requirement to monitor, evaluate and report on performance.

A monitoring, reporting, evaluation and improvement process through the committee will be used to track action delivery across the region consistent with the Local Land Services standards for Monitoring, Evaluation, Reporting and Improvement (MERI) and the Natural Resources Commission.

This MERI framework will allow a comparison of results against planned immediate, intermediate and long-term outcomes. This enables a systematic and objective assessment of the appropriateness, effectiveness and efficiency of actions, policies, projects and programs.

An important aspect of this plan is the focus on collaboration and sound partnerships for strategic weed planning, implementation and reporting.

Agreement on processes and measures to track our success in establishing a collaborative approach to weed management will be an important task post plan approval and will be part of the development of the business planning components outlined in Section 6.2.

Likewise we will need to review and track processes developed and actioned, and resources secured and aligned for plan delivery.

7.1.1 Standardised approaches and reporting

Standardised MERI systems will be essential to compiling and reporting on the efforts and achievements of stakeholders in contributing to this plan.

Achieving consistency will require the development of a core set of:

- key performance indicators that assess implementation of the strategies within this plan
- standard local monitoring and reporting protocols that support region and state-wide needs
- evaluation by partners and the committee to guide improvement in weed management projects, programs and policies.

Regional performance measures will be further developed following completion of this plan and will allow tracking of the progressive impacts of our interventions and guide investment in priorities. The performance measures will provide feedback on achievements against the goals of this plan as outlined below.

Shared Responsibility (Goal 1)

- Adoption of leading practice (by sector)
- Awareness and education programs delivered
- Community capacity and capability to undertake weed biosecurity (knowledge, skills, networks, resources - social goal) increased

Sustainable Landscapes (Goals 2 and 3)

- New incursions of high priority weeds avoided
- New incursions of high priority weeds eradicated or destroyed
- Spread of emerging high priority weeds prevented
- Impacts of high priority widespread weeds reduced
- Causes of weed invasion identified and managed
- Weed impacts on natural resources reduced or avoided
- Weed impacts to production / industries reduced (economic goal)

Collaborative leadership and innovation (Goal 4)

- Business planning components completed

There are a wide range of metrics in use by committee member organisations, stakeholders and through the Weeds Action Program 2015-2020 and other programs and these will take time to collate and assess. Agreed metrics will be considered through the processes outlined in 6.2 and in consultation with the State Weeds Committee.

Review and reporting on the performance against this plan will occur annually. A component of this review will be an evaluation of our regional contribution to the new biosecurity reforms and their influence on weed management on the Northern Tablelands.

Our approach to MERI must meet the needs of customers, investors and stakeholders. We must also be able to report on investment outcomes at a range of scales – local, sub-regional, and regional.

Standardised reporting should ideally support:

- individual stakeholder needs for local level reporting;
- state level reporting and reporting to investors;
- annual reporting on implementation of this plan and progress with priorities.

7.1.2 Information Management

The MERI framework will provide information that allows us to evaluate our performance and identify options for improving our approaches to weed management. Data collection and the strategic management of information is therefore crucial to the adoption of standardised approaches for the region.

The Committee will oversee the coordinated development of systems for:

- adopting standard regional data (including weed mapping) capture, storage, record keeping and retrieval protocols;
- collecting, synthesising and storing data in a form useful for multiple stakeholders;
- contributing weed data and management information to the Biosecurity Information System;
- contributing to local, regional and state-wide weed information and knowledge platforms that support research capacity and capability;
- ensuring that weed information and data are readily available to stakeholders for use in research, updating management plans and reporting.

The data and information collected will be integrated into State-wide data sets. It will contribute to whole-of-NSW reporting on the state and trend of asset conditions including the State of the Environment report and reporting against objectives for the Invasive Species Plan.

7.1.3 Strengthening Science and Research Capacity

Appropriate research can play an important role in re-evaluating practice, supporting innovation and underpinning future directions. Engaging proactively with the research community is fundamental to improving weed risk assessments and the region's weed management practice.

Through links with the State Weeds Committee, the regional committee will contribute to and facilitate:

- engagement with the community, the aboriginal community, government, industry and research providers to identify current knowledge gaps and to document weed species research priorities;
- stronger partnerships and active participation in industry, government and university collaborations for weeds research;
- new and updated regional and sub-regional weed risk assessments;
- development of new technologies and innovative approaches to the management of weed risks;
- investigation of biological control programs for priority weeds;
- a better understanding of the impacts of a changing climate on weed behaviour and the interplay between natural systems and weeds;
- incorporation of research findings into weed management decision-making.

7.2 Adaptive management and continuous improvement

The Northern Tablelands Regional Weed Committee will foster adaptive management and continual improvement in weed management. In its simplest form, adaptive management is about a continuous improvement cycle: 'plan-do-learn'. This is underpinned by monitoring, reporting and evaluation processes and the subsequent improvement of planning and delivery based on lessons learned.

Local Land Services uses a "triple loop" learning approach which applies learning at the following scales to drive continuous improvement:

- project (where learning focuses on improving project design and practices);
- program (where learning focuses on improving our strategies, targets and assumptions);
- organisational (where learning focuses on improving our governance and systems).

This approach is outlined in the Northern Tablelands Local Land Services Local Strategic Plan and will provide the basis for our MERI. The application of triple loop learning to this plan will be addressed in consultation with lead organisations and delivery partners following plan approval.

7.3 Plan Review

A mid term review of this plan will be undertaken at year 3 and a full review will be undertaken nearing the end of the current term for this plan (year 5). While weed risk assessments will be updated as needed from time to time, a particular focus at year 3 will be on evaluation and review of weed lists in this plan (Appendix 1 and 2).

8. List of Abbreviations

BIS	Biosecurity Information System	NIWAC	Northern Inland Weeds Advisory Committee
DPI	NSW Department of Primary Industries	NPWS	National Parks and Wildlife Service
DoI	Department of Industry - Lands	NRC	Natural Resources Commission
GBD	General Biosecurity Duty	NTLLS	Northern Tablelands Local Land Services
km	kilometre	OEH	The NSW Office of Environment and Heritage
LCA	Local Control Authority	RSWMP	Regional Strategic Weed Management Plan
LLS	Local Land Services	RWC	Regional Weed Committee
MERI	Monitoring, evaluation, reporting and improvement	SWC	State Weeds Committee
NEWA	New England Weeds Authority	TSR	Travelling Stock Reserve
		WAP	Weeds Action Plan

9. Glossary

Aboriginal cultural heritage: Aboriginal cultural heritage consists of places and items that are of significance to Aboriginal people because of their traditions, observances, lore, customs, beliefs and history. It provides evidence of the lives and existence of Aboriginal people before European settlement through to the present. Aboriginal cultural heritage is dynamic and may comprise physical (tangible) or non-physical (intangible) elements.

Adaptive management: A management approach based on the science of learning by doing. It involves testing the response of a system then applying this understanding to future decisions.

Asset protection: Preventing the spread of weed species to high value assets of economic, environmental and/or social value or reducing the impact on the high value asset for weeds already present.

Best practice: A technique or methodology that, through experience and research, has proven to reliably lead to a desired result. Also see leading practice.

Biodiversity: The variety of all life forms: the different species of plants, animals, fungi, bacteria and other micro-organisms, the genes they contain and the ecosystems (the variety of habitats, biotic communities and ecological processes) of which they form a part.

Biosecurity: Protecting the economy, environment and community from the negative impacts of pests, diseases and weeds. Biosecurity is vital for the health, wellbeing and prosperity of everyone in NSW.

Collaboration: Working together to develop an understanding of all issues and interests to work out alternatives and identify preferred solutions for joint decision making.

Containment: Preventing the spread of weed species beyond a predefined area and reducing the impact where it occurs.

Country: A term used by Aboriginal people to refer to the land to which they have a traditional attachment to.

Customer: Any land manager within the State or region, irrespective of whether they are private or public land managers, ratepayers or non-ratepayers.

Emergency Management: Management related to preparedness, response and recovery for actual or imminent animal pest and disease and plant pest and disease emergencies, natural disasters and other emergencies impacting on primary production or animal health and safety.

Eradication: To permanently remove a weed species and its propagules from an area.

Governance: The framework of rules, structures, interactions and practices by which an organisation or system exercises power, responsibility and decision making to ensure accountability, fairness, and transparency in relationship customers, stakeholders and investors.

General Biosecurity Duty: Under the *Biosecurity Act 2015* a General Biosecurity Duty (GBD) applies to all weed species that present a biosecurity risk. For weeds, the GBD means that any person dealing with plant matter, who knows or ought reasonably to know the biosecurity risk posed by that dealing, must take measures to prevent, minimise or eliminate the biosecurity risk (as far as is reasonably practicable). 'Dealing' has a broad definition in the act. Plant matter includes plants, parts of plants and seeds.

Habitat: A place suitable for survival and/or reproduction of a particular plant or animal.

Investor: Organisations and individuals who invest in weed management and outcomes from this investment.

Landscape: Any section of land or coast and its natural features, including rivers and other water bodies. Represents the overlay of the variety and arrangement of physical landforms (e.g. rivers, escarpment, rocky reefs), communities of people (e.g. Aboriginal, rural) and land uses (e.g. urban, conservation, agricultural).

Leading practice: Currently accepted best practice. Also see best practice.

Prevention: To prevent a weed species arriving and establishing in an area.

Recommended measure: An agreed approach considered by the Regional Weed Committee that reflects community expectations.

Stakeholder: Organisations that collaborate and partner to support weed management.

Travelling Stock Reserve: Any:

- route or camping place reserved for travelling stock route or camping place under the Crown Lands Act 1989
- reserve for travelling stock, water reserve, reserve for access or crossing (where the reserve is for the purpose of providing travelling stock with access to or a crossing of water, whether expressly notified for that purpose or not), or
- stock watering place.

Triple loop learning: Learning that redefines organisational actions, systems and processes as a basis for changes in governance at a range of scales.

Weed: Plants (foreign to the Region) that are unwanted in a given situation and which usually have detectable negative economic, environmental or social impacts.

10. References

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Appendix 1: Priority weeds for the Northern Tablelands Local Land Services Region

This appendix covers State level determined priorities (A1.1) and regionally determined priorities (A1.2).

The Biosecurity Act and regulations provide specific legal requirements for state level priority weeds (A1.1) and high risk activities. For each state level priority weed, the state objective and how this objective is achieved through specific requirements under the Biosecurity Act and regulations is covered. These specific regulatory requirements include Prohibited Matter, Biosecurity Zones, Mandatory Measures, Control Orders (see Table 2.1 and Section 4.2).

A1.1 State Level Determined Priority Weeds

State Priority Weed Objective – PREVENTION (Whole of State): The following weeds are currently not found in some parts of the state, pose significant biosecurity risk and prevention of the biosecurity risk posed by these weeds is a reasonably practical objective	
Species	Relevant Legislation & Strategic Response
All species of vascular plant (Tracheophyta)	The following legislative requirement also applies:
	Mandatory Measure (Division 8, Clause 30) Duty to notify on importation of plants into the State: (1) A person must not import a species of vascular plant (Tracheophyta) into the State if the species is not currently present in the State unless the person has, at least 20 working days before the plant is imported into the State, notified the species of plant and its proposed location within the State.
	(2) The notification is to be given to an authorised officer and is to be given in accordance with Part 6. (3) A species of plant is taken not to be present in the State if the Plant Information Network System of The Royal Botanic Gardens and Domain Trust does not show it as being present in the State. Note. See http://plantnet.rbgsyd.nsw.gov.au/ . Regional Strategic Response: Increase priority placed on the identification and mapping of unrecorded weed species, including the collection and submission of specimens to the Plant Information Network System of the Royal Botanic Gardens.

Gamba Grass - <i>Andropogon gayanus</i>	<p>Prohibited Matter (Part 4, Biosecurity Act, 2015): A person who deals with any biosecurity matter that is Prohibited Matter throughout the State is guilty of an offence.</p> <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Implement quarantine and / or hygiene protocols • Undertake high risk sites and pathway analysis to identify potential introduction areas and preventative options • Have a collaborative rapid response protocol in place.
Pond Apple - <i>Annona glabra</i>	
Bridal Veil Creeper - <i>Asparagus declinatus</i>	
Kochia <i>Bassia scoparia</i> (excluding subsp. <i>trichophylla</i>)	
Spotted Knapweed <i>Centaurea stoebe</i> subsp. <i>micranthos</i>	
Black Knapweed <i>Centaurea xmoncktonii</i>	
Siam Weed <i>Chromolaena odorata</i>	
Koster's Curse <i>Clidemia hirta</i>	
Rubber Vine <i>Cryptostegia grandiflora</i>	
Anchored Water Hyacinth <i>Eichhornia azurea</i>	
Hawkweed <i>Hieracium</i> spp (all species)	
Hydrocotyl/Water Pennywort <i>Hydrocotyle ranunculoides</i>	
Lagarosiphon <i>Lagarosiphon major</i>	
Frogbit / Spongeplant <i>Limnium</i> spp. (all species)	
Yellow Burrhead <i>Limnocharis flava</i>	
Miconia <i>Miconia</i> spp. (all species)	
Mikania Vine <i>Mikania micrantha</i>	
Mimosa <i>Mimosa pigra</i>	
Water Milfoil <i>Myriophyllum spicatum</i>	
Mexican Feather Grass <i>Nassella tenuissima</i> (syn. <i>Stipa tenuissima</i>)	
Broomrape <i>Orobancha</i> spp. (all species except the native <i>O. cernua</i> var. <i>Australiana</i> and <i>O. minor</i>)	
Water Soldier <i>Stratiotes aloides</i>	
Witchweed <i>Striga</i> spp. (except the native <i>S. parviflora</i>)	
Water Caltrop <i>Trapa</i> spp. (all species)	
Karoo Acacia <i>Vachellia karroo</i> (syn. <i>Acacia karroo</i>)	
Prickly Acacia <i>Vachellia nilotica</i> (syn. <i>Acacia nilotica</i>)	

State Priority Weed Objective – ERADICATION (Whole of State): The following weeds are present in limited distribution and abundance in some parts of the state. Elimination of the biosecurity risk posed by these weeds is a reasonably practical objective.	
Species	Relevant Legislation & Strategic Response
Parthenium weed <i>Parthenium hysterophorus</i>	<p>Prohibited Matter (Part 4, <i>Biosecurity Act, 2015</i>): A person who deals with any biosecurity matter that is Prohibited Matter throughout the state is guilty of an offence.</p> <p>The Following legislative requirement also applies:</p> <p>Mandatory Measure (Division 8, Clause 31, Biosecurity Regulation 2017) - Parthenium weed carriers - machinery and equipment.</p> <ol style="list-style-type: none"> This clause applies to the following equipment: <ul style="list-style-type: none"> (a) grain harvesters (including the comb or front) (b) comb trailers (including the comb or front) (c) bins used for holding grain during harvest operations (d) augers or similar equipment used for moving grain (e) vehicles used for transporting grain harvesters (f) vehicles used as support vehicles with grain harvesters and that have been driven in paddocks during harvest operations (g) mineral exploration drilling rigs and vehicles used for transporting those rigs A person must not import into the state from Queensland any equipment to which this clause applies.

State Priority Weed Objective – ERADICATION (Whole of State): The following weeds are present in limited distribution and abundance in some parts of the state. Elimination of the biosecurity risk posed by these weeds is a reasonably practical objective.	
Species	Relevant Legislation & Strategic Response
Tropical Soda Apple <i>Solanum viarum</i>	<p>Biosecurity Control Order - <i>Solanum viarum</i> (Tropical Soda Apple):</p> <ul style="list-style-type: none"> (a) The plant must be eradicated from the land and be fully and continuously suppressed and destroyed; and (b) The lands must be kept free of the plant after eradication; (c) Propagules must not be knowingly moved by stock, machinery, soil, turf or in plant material; (d) a person who becomes aware of, or suspects the presence of this species is to immediately notify their local control authority; and (e) a person is not required to notify if the person knows that the required notification has already been given by another person. <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Develop a region-wide coordinated campaign for collaborative management. • Detailed surveillance and mapping to locate all infestations. • High level analysis of pathways to identify potential introduction areas and preventative options. • monitor progress towards eradication. <p>The following legislative requirement also applies: Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not import into the State or sell.</p>
Boneseed <i>Chrysanthemoides monilifera</i> subspecies <i>monilifera</i>	<p>Draft Control Order - <i>Chrysanthemoides monilifera</i> subspecies <i>monilifera</i> (Boneseed):</p> <ul style="list-style-type: none"> (a) The plant must be eradicated from the land and be fully and continuously suppressed and destroyed; and (b) The lands must be kept free of the plant after eradication; (c) Propagules must not be knowingly moved by stock, machinery, soil, turf or in plant material; (d) a person who becomes aware of, or suspects the presence of this species is to immediately notify their local control authority; and (e) a person is not required to notify if the person knows that the required notification has already been given by another person. <p>The following legislative requirement also applies: Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not import into the State or sell.</p>

State Priority Weed Objective – ERADICATION (Whole of State): The following weeds are present in limited distribution and abundance in some parts of the state. Elimination of the biosecurity risk posed by these weeds is a reasonably practical objective.	
Species	Relevant Legislation & Strategic Response
Parkinsonia aculeata	<p><i>Draft Control Order - Parkinsonia aculeata (Parkinsonia):</i></p> <ul style="list-style-type: none"> (a) The plant must be eradicated from the land and be fully and continuously suppressed and destroyed; and (b) The lands must be kept free of the plant after eradication; (c) Propagules must not be knowingly moved by stock, machinery, soil, turf or in plant material. (d) a person who becomes aware of, or suspects the presence of this species is to immediately notify their local control authority; and (e) The relevant local control authority must notify the Department of Primary Industries as soon as practicable after becoming aware of, or being notified of any infestation; and (f) a person is not required to notify if the person knows that the required notification has already been given by another person. <p><i>The following legislative requirement also applies:</i> <i>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017):</i> A person must not move, import into the State or sell.</p>

State Priority Weed Objective – CONTAINMENT: These weeds are widely distributed in some parts of the state. While broad scale elimination is not practicable, minimisation of the biosecurity risk posed these weeds is reasonably practicable.	
Land area where requirements apply	Relevant Legislation & Strategic Response
Alligator Weed - <i>Alternanthera philoxeroides</i>	<p>Biosecurity Regulation 2017 - Part 5, Division 2 (Alligator weed Biosecurity zone) An owner or occupier of land in the Alligator weed biosecurity zone on which there is the weed <i>Alternanthera philoxeroides</i> (Alligator weed) must:</p> <p>(a) if the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable in accordance with Part 6, and</p> <p>(b) eradicate the weed or if that is not practicable destroy as much of the weed as is practicable and suppress the spread of any remaining weed.</p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Develop a region-wide coordinated campaign for collaborative management • Detailed surveillance of pathways and mapping to locate all infestations • High level analysis of pathways to identify potential introduction areas and preventative options • Implement quarantine and/or hygiene protocols • Monitor progress towards eradication
Bitou Bush - <i>Chrysanthemoides monilifera</i>	<p>Biosecurity Regulation 2017 - Part 5, Division 3 (Biosecurity Zone) An owner or occupier of land in the bitou bush Biosecurity Zone on which there is the weed <i>Chrysanthemoides monilifera</i> subsp. rotunda (Bitou Bush) must:</p> <p>(a) if the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable in accordance with Part 6, and</p> <p>(b) eradicate the weed or if that is not practicable destroy as much of the weed as is practicable and suppress the spread of any remaining weed.</p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not move, import into the State or sell.</p> <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Develop a region-wide coordinated campaign for collaborative management. • Detailed surveillance of pathways and mapping to locate all infestations • High level analysis of pathways to identify potential introduction areas and preventative options • Implement quarantine and/or hygiene protocols • Monitor progress towards eradication

<p>State Priority Weed Objective – CONTAINMENT:</p> <p>These weeds are widely distributed in some parts of the state. While broad scale elimination is not practicable, minimisation of the biosecurity risk posed these weeds is reasonably practicable.</p> <p>The following legislation applies</p>	
Land area where requirements apply	Relevant Legislation & Strategic Response
Water Hyacinth <i>Eichhornia crassipes</i>	
<p>A Biosecurity Zone, to be known as the Water Hyacinth Biosecurity Zone, is established for all land within the State except land in the following regions:</p> <p>(a) Greater Sydney or North Coast,</p> <p>(b) North West (but only in the region in the local government area of Moree Plains),</p> <p>(c) Hunter (but only land in that region that is in the local government area of City of Cessnock, City of Lake Macquarie, City of Maitland, Port Stephens and Mid Coast),</p> <p>(d) South East (but only land in that region that is in the local government area of Eurobodalla, Kiama, City of Shellharbour, City of Shoalhaven or City of Wollongong).</p>	<p>Draft Biosecurity Regulation 2016 - Part 5, Division 3 (Biosecurity Zone)</p> <p>An owner or occupier of land in the bitou bush Biosecurity Zone on which there is the weed <i>Chrysanthemoides monilifera subsp. rotunda</i> (Bitou Bush) must:</p> <p>(a) if the weed is part of a new infestation of the weed on the land, notify the local control authority for the land as soon as practicable in accordance with Part 6, and</p> <p>(b) eradicate the weed or if that is not practicable destroy as much of the weed as is practicable and suppress the spread of any remaining weed.</p> <p>The following legislative requirement also applies:</p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2016):</p> <p>A person must not move, import into the State or sell.</p> <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Develop a region-wide coordinated campaign for collaborative management. • Detailed surveillance of pathways and mapping to locate all infestations • High level analysis of pathways to identify potential introduction areas and preventative options • Implement quarantine and/or hygiene protocols • Monitor progress towards eradication

State Priority Weed Objective – ASSET PROTECTION (Whole of State): These weeds are widely distributed in some areas of the State. As Weeds of National Significance, their spread must be minimised to protect priority assets	
Species	Relevant Legislation & Strategic Response
Madeira Vine <i>Anredera cordifolia</i>	<p>The following legislative requirement also applies:</p> <p>Mandatory Measure (Division 8, Clause 33, Biosecurity Regulation 2017): A person must not import into the State or sell.</p> <p>Regional Strategic Response:</p> <ul style="list-style-type: none"> • Develop a region-wide coordinated campaign for collaborative management • Identification of regional containment zones when required • Identification of key sites/assets in the geographic area • Species managed in accordance with published weed management plans.
Asparagus Weeds <i>Asparagus aethiopicus</i> , <i>A. africanus</i> , <i>A. asparagoides</i> Western Cape form*, <i>A. plumosus</i> , <i>A. scandens</i>	
Cat's Claw Creeper <i>Dolichandra unguis-cati</i>	
Bellyache Bush <i>Jatropha gossypifolia</i>	
Lantana <i>Lantana camara</i>	
African Boxthorn <i>Lycium ferocissimum</i>	
Chilean Needle Grass <i>Nassella neesiana</i>	
Serrated Tussock <i>Nassella trichotoma</i>	
Opuntia, Opuntia spp., Hudson pear <i>Cylindropuntia</i> spp., <i>Austrocylindropuntia</i> spp. (Excludes <i>O. ficus-indica</i>) (opuntoid cacti)	
Mesquite <i>Prosopis</i> spp.	
Blackberry <i>Rubus fruticosus</i> spp. agg. (excludes exempt commercial cultivars, as defined by NSW DPI)	
Sagittaria <i>Sagittaria platyphylla</i>	
Salvinia <i>Salvinia molesta</i>	
Fireweed <i>Senecio madagascariensis</i>	
Silver-leaf nightshade <i>Solanum elaeagnifolium</i>	
Athel Pine <i>Tamarix aphylla</i>	

A1.2 Regional priority weeds

A1.2 identifies priority weeds for the region to which “recommended measures to discharge General Biosecurity Duty” have been applied and articulates community expectations for managing these weeds in the region. These determinations are a result of the rigorous weed prioritisation and expert review process outlined in Section 4.4.

Regional Priority Weed Objective – PREVENTION (Whole of Region):		
The following weeds are currently not found in the region, pose significant biosecurity risk and prevention of the biosecurity risk posed by these weeds is a reasonably practical objective.		
Species	Outcomes to demonstrate compliance with the GBD	Relevant Legislation & Strategic Response
Alligator Weed <i>Alternanthera philoxeroides</i>	<ul style="list-style-type: none"> The plant should be eradicated from the land and the land kept free of the plant. Land managers should mitigate the risk of new weeds being introduced to their land. 	Prevent entry to the Region <ul style="list-style-type: none"> Implement quarantine and/or hygiene protocols. Pathways analysis to identify potential introduction areas and preventative options.
Water hyacinth <i>Eichhornia crassipes</i>	<ul style="list-style-type: none"> The plant should not be bought, sold, grown, carried or released into the environment Notify local control authority if found 	<ul style="list-style-type: none"> Have a collaborative rapid response protocol in place.

Regional Priority Weed Objective – ERADICATION (Whole of Region):		
The following weeds are present in limited distribution and abundance. Elimination of the biosecurity risk posed by these weeds is a reasonably practical objective		
Species	Outcomes to demonstrate compliance with the GBD	Relevant Legislation & Strategic Response
Gorse <i>Ulex europaeus</i>	<ul style="list-style-type: none"> The plant should be eradicated from the land and the land kept free of the plant. 	Strategic response: <ul style="list-style-type: none"> Detailed surveillance and mapping to locate all infestations. High level pathways analysis to identify potential introduction areas and preventative options. Implement quarantine and/or hygiene protocols. Monitor progress towards eradication.
Tropical soda apple <i>Solanum viarum</i>	<ul style="list-style-type: none"> Land managers should mitigate the risk of new weeds being introduced to their land. 	
Water lettuce <i>Pistia stratiotes</i>	<ul style="list-style-type: none"> The plant should not be bought, sold, grown, carried or released into the environment Notify local control authority if found. 	

Regional Priority Weed Objective – CONTAINMENT (Whole of Region): These weeds are widely distributed in parts of the region. While broad scale elimination is not practicable, minimisation of the biosecurity risk posed by these weeds is reasonably practicable.		
Species	Outcomes to demonstrate compliance with the GBD	Relevant Legislation & Strategic Response
Mexican water lily <i>Nymphaea mexicana</i>		
Montpellier/Cape broom <i>Genista monspessulana</i>		
Scotch/English broom <i>Cytisus scoparius</i> subsp. <i>scoparius</i>	<ul style="list-style-type: none"> Land managers should prevent spread from their land Land managers should mitigate the risk of new weeds being introduced to their land. 	Strategic response: <ul style="list-style-type: none"> Detailed surveillance and mapping to locate all infestations.
Nodding thistle <i>Carduus nutans</i> subsp. <i>nutans</i>	<ul style="list-style-type: none"> The Plant should not be bought, sold, grown, carried or released into the environment Notify local control authority if found. 	<ul style="list-style-type: none"> High level pathways analysis to identify potential introduction areas and preventative options. Monitor progress towards eradication.
Serrated Tussock <i>Nassella trichotoma</i>		<ul style="list-style-type: none"> The plant should be managed in accordance with a regional best practice guide
Honey locust <i>Gleditsia triacanthos</i>		

Regional Priority Weed Objective – ASSET PROTECTION (Whole of Region): These weeds are widely distributed in some areas of the region. Their spread must be minimised to protect priority assets.		
Species	Outcomes to demonstrate compliance with the GBD	Relevant Legislation & Strategic Response
Privet Sp. <i>Ligustrum lucidum</i> <i>Ligustrum sinense</i>	<ul style="list-style-type: none"> Land managers should prevent spread from their land, where feasible. Land managers should mitigate the risk of new weeds being introduced to their land. The Plant should not be bought, sold, grown, carried or released into the environment 	<p>Strategic response:</p> <ul style="list-style-type: none"> Detailed surveillance and mapping to locate all infestations. High level pathways analysis to identify potential introduction areas and preventative options. Monitor progress towards eradication. The plant should be managed in accordance with a regional best practice guide.
Annual ragweed <i>Ambrosia artemisiifolia</i>		
Blackberry <i>Rubus fruticosus</i> spp. agg		
Chilean needle grass <i>Nassella neesiana</i>		
Green cestrum <i>Cestrum parqui</i>		
Harrisia cactus <i>Harrisia martinii</i> and <i>H. tortuosa</i>		
St John's wort <i>Hypericum perforatum</i>		
Silverleaf nightshade <i>Solanum elaeagnifolium</i>		
Sweet briar <i>Rosa rubiginosa</i>		
Yellow bells <i>Tecoma stans</i>		

Appendix 2: Other regional weed list

A2.1 Additional Species of Concern

This Species of Concern list identifies those species that may have a high weed risk, though there is not sufficient knowledge of the risk or impact to define a feasible regional response. The species may pose a risk to specific areas, such as high conservation value land or may be the focus of funding applications for a coordinated response. Many of these weeds are agricultural or horticultural, so regulatory control measures (other than the GBD) may not be appropriate.

Regional Strategic Responses may include:

- Develop best practice guides to assist land managers to manage the weeds effectively and efficiently
- work within existing widespread weed programs for strategic asset protection
- prioritise the application of the GBD to assist with management of these species
- work with industry and community to develop voluntary restrictions on sale and trade.
- Monitor infestations to inform regular risk assessments.
- Some pasture species (i.e. cocksfoot, phalaris, paspalum and vetch) have been identified as a potential threat to native biodiversity in high conservation areas.

Species of Concern list for the Northern Tablelands Local Land Services Region			
Common Name	Scientific Name	Common Name	Scientific Name
Coolatai Grass	<i>Hyparrhenia hirta</i>	Firethorns	<i>Pyracantha spp</i>
African Lovegrass	<i>Eragrostis curvula</i>	Vetch	<i>Vicia spp</i>
Sabi Grass	<i>Urochloa mosambicensis</i>	Hawthorn	<i>Crateagus monogyna</i>
Green Panic	<i>Panicum maximum var trichoglume</i>	Cotoneaster	<i>Cotoneaster spp</i>
Whiskey Grass	<i>Andropogon virginicus</i>	African boxthorn	<i>Lycium ferocissimum</i>
Phalaris	<i>Phalaris aquatica</i>	Fireweed	<i>Senecio madagascariensis</i>
Cocksfoot	<i>Dactylis glomerata</i>	Cats claw creeper	<i>Dolichandra unguis-cati</i>
Paspalum	<i>Paspalum dilatatum</i>	Mother-of-millions	<i>Bryophyllum delagoense</i>
Sweet Vernal Grass	<i>Anthoxanum odoratum</i>	Madeira vine	<i>Anredera cordifolia</i>
Turnip weed	<i>Rapistrum rugosum</i>	Bahia Grass	<i>Paspalum notatum</i>
Ox-eye Daisy	<i>Leucanthemum vulgare</i>	Tree of Heaven	<i>Ailanthus altissima</i>



Notes

Regional Strategic Weed Management Plan
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**Local Land
Services**
Northern Tablelands