Mareeba
SHIRE COUNCIL

Mareeba Shire Community Biosecurity Plan

2025 - 2030

Contents

Acronyms

BSO	Biosecurity Security Order
DAF	Department of Agriculture and Fisheries
DNRME	Department of Natural Resources Mines and Energy
FNQROC	Far North Queensland Regional Organisation of Councils
HEV	High Environmental Value
MSC	Mareeba Shire Council
MSCBP	Mareeba Shire Community Biosecurity Plan
MLGA	Mareeba Local Government Area
NAMAC	Natural Asset Management Advisory Committee
NRM	Natural Resource Management
NTWEP	National Tropical Weed Eradication Program
PMAC	Pest Management Advisory Committee
WONS	Weeds of National Significance

1 Biosecurity Plan and Overview

The aim of the Mareeba Shire Community Biosecurity Plan (2025–2030) is to bring together efforts from all sectors of the local community by providing a cohesive framework for effective and targeted biosecurity management within the Mareeba Local Government Area (MLGA).

The Plan uses a risk-based approach to.

- Assist in the prioritisation of resources to manage invasive plants and animals.
- Develop management strategies for high priority invasive plants and animals which occur, or might occur, within the MLGA.
- Provide management outcomes for specific high priority species; and
- Provide for the preservation and enhancement of the natural environment and liveability of the MLGA.

The plan complements existing key projects and programs delivered in collaboration with the community, organisations, and various partnerships. These initiatives aim to promote biosecurity awareness and enhance the local community's understanding, with a focus on the identification, control, and eradication of invasive plants and animals.

The Far North Queensland Regional Organisation of Councils (FNQROC) facilitated the Biosecurity risk assessment process using the State Biosecurity planning framework and assists in developing the action plans for the priority species.

The risk assessment and planning framework was used to develop action plans for invasive species control recommendations.

These action plans have been developed with consideration of management priorities, known species distribution, feasibility, and achievability. They also consider existing and potential impacts on key biosecurity considerations within the MLGA, including human health, social amenity, the economy, and the environment.

In addition, the plan outlines species management responsibilities across individuals, agencies, and organisations, while providing landholders with strategic guidance and practical tools to help prioritise the management of invasive plants and animals.

Vision

A community united in managing biosecurity risks to the Mareeba Local Government Area

2 Introduction

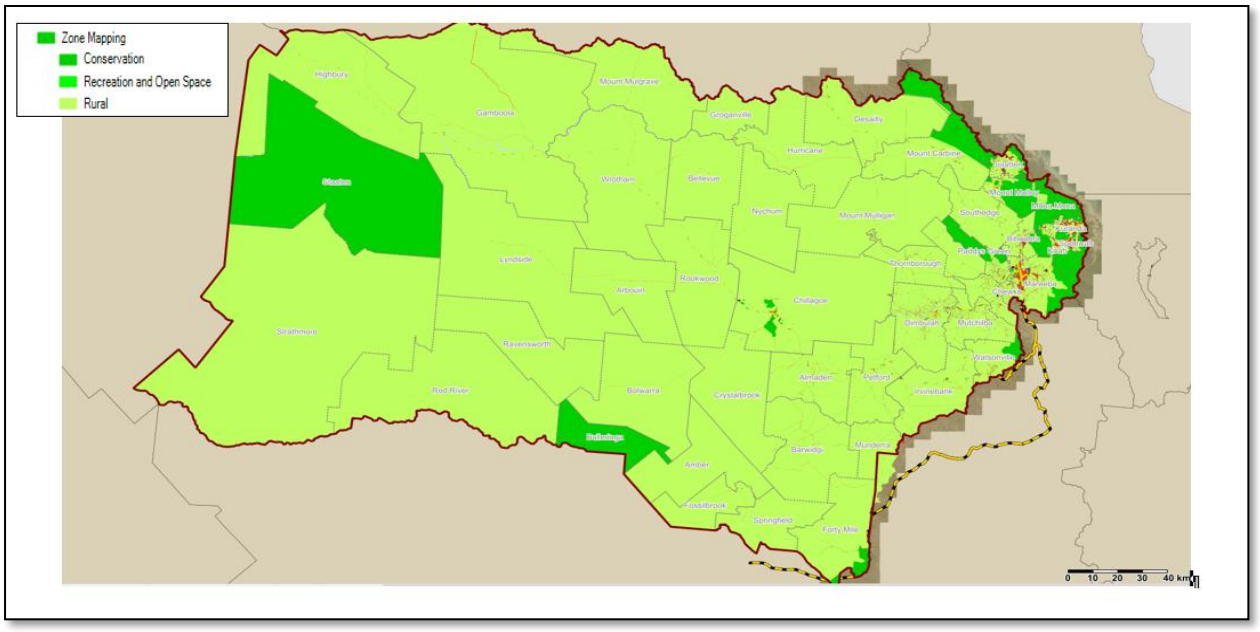
Mareeba Shire is located on the Northern Tablelands which supports a great diversity of regional ecosystems and environmentally sensitive areas. It straddles the three bioregions of the Wet Tropics, the Einasleigh Uplands and Cape York.

The MLGA contains important landscape linkages for biodiversity of tropical rainforests, open eucalypt woodlands and dry savannah country, including a network of important riparian corridors and waterways.[1]

[1] http://plan.northerngulf.com.au/northerntablelands/

3 Protecting the Regions Assets and Environment

The Mareeba Shire stretches across the base of Cape York Peninsula and comprises rural and remote agricultural communities in an area of 53,547km2,[2] approximating the size of Tasmania. The MLGA had an estimated resident population of 24,003 as of 30 June 2024.[3]



Map 1 Mareeba Shire Council local government area

3.1 Protecting Agricultural Lands

Mareeba's agriculture sector generates employment, income and business growth and positions the MLGA as the key contributor to making the Far North region the third largest fruit producing region in Australia[4]. It is important for landholders and key stakeholders to have a collaborative approach when setting priorities for invasive plants and animal management on affected properties.

3.2 Protecting our Inland Waters and Environmentally Sensitive Areas

The MLGA inland waterways (rivers, creeks, and wetlands) have an inherent value to the broader community, environment and the economy. These waterways are unique and form part of an inland water system flowing both to the Gulf of Carpentaria and the Great Barrier Reef.

Photo 1 Chillagoe Creek, Chillagoe

Photo 2 Removal of Amazon Frobit by Cleanco - Barron River, Kuranda

[2] Compiled and presented in economy.id®. http://economy.id.com.au/fnqroc

[3] profile.id.com.au/fnqroc/population-estimate

[4] Cunningham-Reid. A., Mareeba Shire Demographic and Socioeconomic Profile 2018

When managed effectively, healthy inland waters can sustain their environmental, economic, cultural, and recreational benefits while also safeguarding the aquatic and ecological biodiversity they support. Proper stewardship ensures that these freshwater systems continue to provide clean water, habitat for native species, opportunities for cultural connection, and spaces for recreation and tourism.

3.3 Protecting Community, Residential and Tourism Values

MSC recognises that sustainability extends beyond caring for the natural environment and physical assets. It also involves understanding and addressing the social and economic impacts of our actions as a community.

Providing the community with residential spaces, parklands and gardens, is an important part of the MLGA, its where people live, work and relax, whilst being able to continue the connections between people, culture and nature.

Photo 3 Kuranda Walking Tail from Barron Falls

The MLGA area is rich in history, with picturesque landscapes attracting locals and tourists to visit the region, which is reflected by relatively high visitor and international worker population, further supporting the local economy.

The implementation of this plan will assist in contributing to the long-term protection of the local environment, ecosystems and attractions, by working with the community and stakeholders to keep the environment free from invasive plants and animals for future generations to enjoy and appreciate.

3.4 Engaging with Stakeholders

The plan recognises the importance of a collaborative approach between key stakeholders and community organisations involved in the management of invasive plants and animals in the MLGA.

The aim of biosecurity engagement is to capture concepts, principles, ideas and share information for the planning and management of invasive plants and animals; and to

- Build relationships with an emphasis on community engagement.
- Determine goals, management and resourcing; and
- Monitoring of projects and programs.

Figure 1 Collaborative Network of Stakeholders

4 Queensland Biosecurity Act

The Queensland Biosecurity Act 2014 (the Act) requires each local government in Queensland to produce a Biosecurity Plan that prioritises invasive plants and animals, ensuring that the highest priority species are targeted and managed.

The Act provides guidance on the management of non-native plants and animal species and uses the term 'biosecurity matter' to describe all non-human living things. Biosecurity matter is divided into prohibited matter and restricted matter.

Under the Act, local governments are only required to consider 'Prohibited' or 'Restricted' invasive plants and animals within the biosecurity plan.

However, other invasive plants and animals which may have the potential to impact the local government area can also be considered, these can include invasive plants and animals such as exotic (not native to Australia) or native species which are not naturally occurring within the MLGA area.

4.1 Local Government Laws

Locally declared pests can be managed either under Council's Local Laws or through a Biosecurity Order under the Biosecurity Act 2014. These measures give Council the ability to work with landholders to ensure pests are controlled and do not spread. This helps protect local farming, the environment, and the wider community from the impacts of invasive plants and animals.

4.1.1 Categories of restricted matter

Restricted matter is divided into seven categories (Table 1), each outlining requirements to reduce, control, or contain its spread and impacts.

Table 1 Restricted invasive matter biosecurity obligations

Restricted Invasive Biosecurity Matter (invasive plants and animals)	
Prohibited matter	Prohibited matter refers to species not yet established in Queensland but capable of harming health, amenity, the economy, or the environment. Everyone including residents, visitors, businesses, and community groups must stay informed and take steps to prevent its entry and spread
Restricted matter	Restricted matter is biosecurity matter already present in Queensland that threatens health, amenity, the economy, or the environment. It must be managed to limit impacts and prevent its spread to uninfested areas.

Reporting Requirements	Examples
Category 1 and 2 **You must report** Call Biosecurity Queensland immediately (Category 1) or within 24 Hours (Category 2)	Includes: electric ants, Asian honeybees, certain animal and aquatic diseases, certain noxious fish, invasive plants and animals such red-eared slider turtle.
Category 3 **Must not be distributed.** This means it must not be released into the environment unless the distribution or disposal is authorised by a regulation or under a permit**.**	Includes all invasive plants and animals where deliberate distribution or disposal is a key source of spread of invasive plants, animals and noxious fish.
Category 4 **You must not move** This is to prevent the spread into other areas of the state.	Includes specific invasive plants and animals, such as noxious fish, feral pigs.
Category 5 **You must not possess or keep** Unless you have a permit under the Biosecurity Act 2014 or another act.	Invasive plants and animals and noxious fish e.g. miconia, rabbits and carp.
Category 6 **You must not feed** Except for the purpose of preparing for or undertaking a control program.	Invasive animals such as feral deer, rabbits, wild dogs and noxious fish such as carp, and tilapia.
Category 7 **Must be humanely killed and disposed of to prevent spread** Must be destroyed and disposed of as soon as practicable *(generally limited to noxious fish)*	Noxious fish such as carp and tilapia.

More information on prohibited plants and animals is available at:

https://www.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/invasive-plants/prohibited

4.2 General Biosecurity Obligation

The General Biosecurity Obligation (GBO) is one of the core principles of the Biosecurity Act and represents a major shift in thinking – from prescriptive to outcome-based management. This means that everyone has a responsibility for managing biosecurity risks.

4.3 Biosecurity Risks and Biosecurity Events

Responsibilities under the GBO, biosecurity risks and biosecurity events are determined by the following[5]
A biosecurity risk is the risk that exists when you deal with:

- any pest, disease or contaminant.
- something that could carry a pest, disease or contaminant (e.g. animals, plants, soil, equipment—known as 'carriers').

A biosecurity event is an event that:

- has, or may have, a significant harmful effect on human health, social amenity, the economy, or the environment; and
- is caused by a pest, disease or contaminant.

4.4 Biosecurity Risks

The GBO is an overarching obligation that requires all persons who deal with biosecurity matter, or a carrier, to take all reasonable and practical measures to prevent or minimise the risk. However, the obligation only arises when the person *knows or ought reasonably to know* that the biosecurity matter, carrier or activity poses or is likely to pose a biosecurity risk.
For example:[6]

- A commercial grower should stay informed about the pests and diseases that could affect or be carried by crops, as well as invasive plants and animals that could be on the property.
- A livestock owner should stay informed about pests and diseases that could affect or be carried by animals, as well as invasive plants animals that could be on the property.
- A landowner should stay informed about the invasive plant's animals (such as wild dogs) that could be on the property.
- For the transportation of agricultural produce, checks should be made as to whether the activity could pose a risk for the spread of diseases or pests.
- For areas where people live or work in a high biosecurity zone (e.g. a builder or developer might be in the fire ant biosecurity zone), the requirements of what precautions need to be made for the controls of what cannot be moved into and out of the zone need to be taken into consideration; and
- A residential gardener should know about the biosecurity risks that might affect their plants.

4.5 What are reasonable and practical steps?

The steps that are considered reasonable and practical will vary depending on the situation and the risks involved. Key factors include:

- How likely an activity is to pose a risk, the more likely it is, the more action is required.
- How harmful an activity could be (e.g. whether it could cause human deaths, extensive productivity losses or other significant economic or community losses.
- How much the person managing the activity knows, or should reasonably be expected to know, about the risk (e.g. how dangerous it is and how it is spread);

[5] https://www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014/general-biosecurity-obligation

[6] https://www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014/general-biosecurity-obligation

- What methods are available to minimise the risk (e.g. equipment and work practices.

Information is widely available on reasonable and practical steps that can be taken to meet the GBO for many common pests and diseases (e.g. on government and industry websites).

4.6 Measures to Reduce Biosecurity Risks

In most cases, biosecurity risks can be reduced by following simple steps. For example.

Manage pests (e.g. invasive plants and wild dogs) and diseases that could have negative impacts on neighbouring properties.

- Carefully examine animals before moving them. Moving animals will pose a biosecurity risk if they are carrying pests or diseases that could adversely affect the environment or agricultural industries. Check for animal diseases that could be spread by contact with other animals, and for invasive plant seeds.
- Closely inspect pot plants and potting mix before taking them home. They will pose a biosecurity risk if they are carrying yellow crazy ants or electric ants, or plant pests, invasive plants or diseases that are not already present in a suburb or area.

5 Biosecurity Planning

5.1 Landowners Property Planning

Landowners are encouraged to, and benefit from, preparing Pest Management Plans for land under their control.

Benefits of planning:[7]

- Property owners are encouraged to effectively control invasive plants and animals.
- Comply with invasive plant and animal laws in Queensland.
- Integrate control activities and other components of a property plan.
- Coordinate control activities with neighbours.
- Improve efficiency by ensuring control activities are prioritised and resources are used at optimal times.
- Monitor how well control activities are working.
- Report progress to funding bodies and local governments.

Other control methods include:

- Provide and maintain access for pest control programs.
- Participate in baiting and trapping programs.
- Reduce priority invasive plants.
- Develop a property pest management plan and when required, a farm biosecurity plan.

For more information on pest management plans contact Department of Agriculture and Fisheries on; 132523 or visit their website. https://www.daf.qld.gov.au/business-priorities/biosecurity/invasive-plants-animals/pest-management-planning/develop-plan

Table 2 Examples of Obligations and Actions which landholders could consider

	Reasonable and Practicable Actions
Action Plan Primary Producers (Horticulture)	Regularly check crops, orchards, and nurseries for unusual pests, weeds, or diseases
	Keep machinery, vehicles, bins, and tools clean before moving them on or off the property.
	Use clean, certified planting material and buy from trusted suppliers.

[7] ww.business.qld.gov.au/industries/farms-fishing-forestry/agriculture/land-management/health-pests-weeds-diseases/weeds-diseases/controlling-weeds/planning

	Reasonable and Practicable Actions
	Set up simple on-farm biosecurity measures like visitor sign-in, wash-down areas, and clear farm signage.
	Actively manage weeds and pest animals on your land.
	Keep records of chemical use, pest treatments, and plant/produce movement.
	Train staff and contractors on how to spot and handle biosecurity risks.
	Report anything unusual (new pests, diseases, or weeds) as soon as possible.
	Implement trapping and baiting programs for pest animals (e.g., feral cats, rabbits, wild dogs, pigs).
	Develop a property pest management plan and/or a farm biosecurity plan. Install pest-appropriate fencing
	Reasonable and Practicable Actions
Action Plan Primary Producers: (Grazing)	Regularly check livestock for signs of pests, diseases, or unusual behaviour.
	Keep fences, watering points, and feed storage areas well maintained to reduce pest and weed risks.
	Maintain good livestock records, including movements, treatments, and purchases.
	Quarantine new or returning stock before mixing with the main herd.
	Manage declared weeds and pest animals on grazing land.
	Clean vehicles, machinery, and equipment before moving them on or off the property.
	Train staff and contractors on farm biosecurity practices.
	Report unusual pests, diseases, or suspected prohibited matter immediately.
	Develop a property pest management plan and/or a farm biosecurity plan. Install pest-appropriate fencing.
	Reasonable and Practicable Actions
Action Plan Landholders Fruit Production	Regularly inspect fruit trees and crops for unusual pests, diseases, or weeds.
	Keep harvest bins, machinery, vehicles, and tools clean before moving them on or off the property.
	Source clean, certified planting stock and rootstock from trusted suppliers.
	Implement orchard biosecurity measures such as visitor sign-in, hygiene stations, and restricted access to production areas.
	Manage declared weeds and pest animals on the property and around orchards.
	Prune and dispose of plant waste correctly to avoid spreading pests and diseases.
	Keep accurate records of chemical use, pest treatments, and fruit movement
	Train family, staff, and contractors to recognise and respond to biosecurity risks.
	Report any unusual pests, diseases, or suspected restricted matter immediately.
	Reasonable and Practicable Actions
Action Plan Nursery Industry and Plant Sellers	Inspect plants regularly for signs of pests, diseases, or unusual growth before sale or distribution.
	Only source stock and propagation material from clean, reputable suppliers
	Keep production areas, benches, tools, and pots clean and free from soil or plant debris.
	Quarantine and monitor new or returning plants before mixing with existing stock.
	Clearly label plants and maintain traceability records of where stock was sourced and sold for major supplies.
	Train staff to recognise biosecurity risks and apply hygiene practices when handling plants.
	Manage weeds and pest animals around nursery sites and retail outlets.
	Report unusual pests, diseases, or suspected restricted matter immediately.

	Reasonable and Practicable Actions
Action Plan Landholders (Rural Residential, Lifestyle, Urban Residential)	Regularly inspect your property, gardens, and yards for unusual pests, weeds, or plant diseases.
	Maintain fences, garden beds, and water points to reduce pest and weed habitat.
	Only source plants, seeds, and animals from reputable suppliers.
	Dispose of garden waste responsibly, such as through council green waste collection or composting, to avoid spreading pests.
	Manage weeds and pest animals on your property, including rabbits, feral pigs, deer or invasive plants.
	Implement trapping and baiting programs for pest animals (e.g., feral cats, rabbits, wild dogs, pigs).
	Train household members or staff (if applicable) to recognise and respond to biosecurity risks.
	Report unusual pests, diseases, or suspected prohibited matter to council or Biosecurity Queensland immediate.
	Maintain clean tools, equipment, and vehicles that move on and off the property.
	Reasonable and Practicable Actions
Action Plan Road Corridor & infrastructure managers & Contractors	Responsibility for transporting clean equipment to and from the site, ensuring that all machinery, vehicles, and tools are free of weeds, soil, seeds, and other contaminants to prevent the spread of pests, diseases, and invasive species
	Completion of the Weed Declaration Form as part of site requirements, providing a formal record of inspection and cleaning in line with environmental regulations, landholder conditions, and project-specific weed management protocol
	Consultation with Council officers in identified high-risk weed areas prior to commencing works to confirm requirements, obtain necessary approvals, and ensure compliance with local weed management protocols
	Reasonable and Practicable Actions
Action Plan Local Government (MSC)	Regularly engage with stakeholders on education and awareness on pest species
	Risk assessment on priority species
	Pest management control and surveillance
	Vehicle and equipment hygiene is maintained
	Data collection of infestations
	Pest management and treatment in line with pest risk on Council land
	Provide community assistance and education programs to support pest management
	Prioritise pest weed and animal management with achievable outcomes
	Develop and implement best practise for roadside slashing weed hygiene

Road Corridor & infrastructure managers & Contractors *(Road & Rail, Power & Communications, Water & Sewage Network)*

5.2 Failing to Comply General Biosecurity Obligations

Failing to comply with the Act could result in a biosecurity officer or MSC Land Protection Officer issuing a Biosecurity Order requiring specific action to be taken within a reasonable timeframe [8]. This formal compliance action ensures an individual, business or other organisation improves the way they manage biosecurity risks.

6 Local Government Area Collaboration

In recognition of the vast spaces and limited resources available community wide, MSC actively collaborates in managing biosecurity risks across the MLGA and participates in several groups to share information and efficiently deploy resources, such as (PMAC), neighbouring councils and (FNQROC).

[8] www.daf.qld.gov.au/business-priorities/biosecurity/policy-legislation-regulation/biosecurity-act-2014/general-biosecurity-obligation

6.1 Pest Management Advisory Committee (PMAC)

The purpose of MSC's PMAC to provide expert advice to Council on community biosecurity matters to assist Council and advise on emerging pest management issues and projects.

PMAC also

1. Advise on the preparation and review of the Mareeba Shire Community Biosecurity Plan.
2. Provide advice on prioritising invasive plant and animal species, including emerging species, to plan for management strategies and resource requirements.
3. Provide a forum to share knowledge and collaborate on invasive species management, control and sustainable environmental solutions including site rehabilitation, restoration and revegetation.
4. Identify and advise on funding and partnership opportunities for resourcing and cost sharing.
5. Provide expert advice on other matters as referred to the PMAC Committee by the Council regarding Biosecurity.

6.2 Far North Queensland Regional Organisation of Councils (FNQROC)

FNQROC has facilitated the establishment of several committees. To assist in the collaboration of information and resources between Council's resulting in the distribution of action plans targeted at priority species.[9]

Natural Asset Management Advisory Committee (NAMAC) is one of the established committees, which is actively involved in pest management, landscape repair and restoration, biodiversity conservation and general landscape management.[10] Local governments work together with key stakeholders and partners to provide the community with information on best practice land and invasive species management.

7 Priority Invasive Plants and Animals in the MLGA

Tables 3 and 4 provide a list of invasive plants and animals which are either found in or may affect the MLGA. Action plans have been developed for priority invasive species listed in Table 3. These action plans are located at the back of this plan.

Table 3 MSC priority and other invasive species listing

Species Common Name	Biosecurity Act 2014Categories Categories							Invasive Plant Programs and Classifications **WONS- Weeds of National significance NTWEP – National Tropical Weed Eradication Program**
	1	2	3	4	5	6	7	
Priority Species List								
Amazon frogbit								WONS
Bellyache bush			3					WONS
Gamba grass			3					
Giant rats tail grass			3					
Giant sensitive plant			3					WONS
Hymenachne			3					
Kosters Curse		2	3	4	5			
Lions tail								
Miconia species		2	3	4	5			NTWEP
Parkinsonia			3					
Parthenium			3					WONS
Rubber vine			3					WONS
Salvinia			3					

[9] https://www.fnqroc.qld.gov.au/

Species Common Name	Biosecurity Act 2014Categories Categories							Invasive Plant Programs and Classifications **WONS- Weeds of National significance** **NTWEP – National Tropical Weed Eradication Program**
	1	2	3	4	5	6	7	
Siam weed			3					
Sickle pod			3					
Thunbergia species			3					WONS
Water hyacinth			3					WONS
Water lettuce			3					WONS
Electric Ants	1							
Feral cat			3	4		6		
Feral pig			3	4		6		
Rabbit								
Deer species			3	4		6		
Wild dog			3	4	5	6		
Other Invasive Plants and Animals List								
Aleman grass Pest fact								-
African tulip Pest fact			3					-
Agave Pest fact								
Buddleia			-					-
Broad-leaved privet Pest fact			3					-
Camphor laurel Pest fact			3					-
Cats claw creeper Pest fact			3					WONS
Calotrope Pest fact			-					-
Cestrum			-					-
Cherry guava			-					-
Chinese privet Pest fact			3					-
Chinee apple Pest fact			3					-
Coffee			-					-
Coral bush			-					-
Grader grass Weblink			-					-
Giant bramble Pest fact			-					-
Guava Pest fact			-					-
Himalayan magnolia			-					-
Japanese sunflower Pest fact			-					-
Lantana Pest fact			3					WONS
Leucaena Pest fact			-					-
Madeira vine Pest fact			3					WONS
Navua sedge Pest fact			-					-
Parkinsonia Pest fact			3					WONS
Prickly acacia Pest fact			3					WONS
Singapore daisy Pest fact			3					-
Thatch grass			-					-
Tobacco weed Pest fact			3					
Turbina vine Pest fact			-					-
Wynn cassia			-					-
Yellow oleander Pest fact			3					-
Thatch grass								-
Tobacco weed								-
Cane toad Pest fact								
Eastern gambusia Pest fact			3	4	5	6		
Indian myna Pest fact								
Tilapia Pest fact			3	4	5	6		

8 Key Projects and Programs

The following key projects and programs are active across the MLGA and highlight the partnerships and programs that are currently underway and may be continued for the duration of this plan. The seven projects and programs for the MLGA have been determined in consultation with key stakeholders with the aim of establishing management goals, performance indicators and outcomes.

These key projects and programs have been established over several years, with the aim of removal and eradication of invasive plants and animals, with the assistance of community groups; local industries and businesses.

Table 4 Key projects and programs for invasive plants and animals

Jatropha (Physic, and Bellyache Bush & Rubber vine)	
Management Goal	Strategic and staged removal from Irvinebank to the Walsh River Junction.
Performance Indicator	Staged removal from upper tributaries.
Strategic Actions	• Reduce infestation in the Emu Creek area. • Survey lower Mitchell Flats to protect the adjoining waterway catchments • To locate and control infestations. • Promote individual landholders and other departments to control target plants and monitor for recurrence. • Facilitate public awareness programs such as displays at local field days and run awareness talks, with landholders in high-risk areas. • Identify funding opportunities to assist in all the above programs.
Project Partners	Mareeba Shire Council, Southern Gulf Catchments NRM, Mitchell River Watershed Management Group, Landholders, Australian Native Bee Research Group, Australian Agriculture Colleges Corporation, Biosecurity Queensland, Traditional Owners, Department of Natural Resources, Mines and

Gamba Grass containment and eradication	
Management Goal	Management and containment
Performance Indicator	Prevention of spread and containment of infestations. Management of plantings on private lands, and community engagement and awareness.
Strategic Actions	• Remove gamba grass from western catchments of the upper Walsh. • To ensure that infestations located are controlled. • Promote individual landholders and other departments to control target plants on their lands and monitor for recurrence. • Facilitate public awareness programs such as displays at local field days and run awareness talks with landholders. Identify funding opportunities to assist in all the above programs. • Roadside control to reduce the spread.
Project Partners	Mareeba Shire Council, Landholders, Tablelands Regional Council, Cook Shire Council, Queensland Parks and Wildlife Service, Mitchell River Watershed Management Group, Biosecurity Queensland and FNQROC

Parthenium - Parthenium detection and removal	
Management Goal	Strategic surveillance, detection and removal of incursions across entire MLGA.
Performance Indicator	Detection and removal of incursions and introductions of Parthenium, new incursions mapped, and monitoring of historical sites.
Strategic Actions	• To ensure that all incursions are located and controlled. • Promote individual landholders and other departments on their lands and monitor for recurrence at controlled sites. • Facilitate public awareness programs such as displays at local field days and run awareness talks with landholders in high-risk areas. • Identify funding opportunities to assist in all the above programs.
Project Partners	Mareeba Shire Council, Landholders, Mitchell River Watershed Management Group, Local Bushwalking Clubs, Biosecurity Queensland, FNQROC.

Siam Weed Eradication	
Management Goal	Map and containment of Siam Weed from the Gibb and Emu Creek, and Rifle Creek, Mt Molloy, Watsonville, Mt Carbine and Dimbulah.
Performance Indicator	All new incursions detected and controlled
Strategic Actions	• Revisits and monitoring to monitor seed bank. • Promote individual landholders and other departments on their lands and monitor populations and impacts of target pest. • Facilitate public awareness programs such as displays at local field days and run awareness talks with landholders in high-risk areas.
Project Partners	Mareeba Shire Council, Landholders, Biosecurity Queensland, Mitchell River Watershed Management Group, FNQROC.

National tropical weed eradication program, - (Mikania vine and Miconia spp.)	
Management Goal	In partnership with the Nation tropical weed eradication program to locate and control all infestations within the MLGA with the aim to eradicate.
Performance Indicator	Surveys completed within management areas, all target invasive plants located mapped and treated with no reproductive events.
Strategic Actions	• Participate in survey and control program. • To ensure that all infestations located are controlled prior to seeding. • Assist or facilitate public awareness programs such as displays at local field days and run awareness talks with landholders in high-risk areas.
Project Partners	National Tropical Weed Eradication program, Mareeba Shire Council, Queensland Parks and Wildlife Service.

Animal Pest Specific Programs

Feral pigs and wild dogs, coordinated baiting programs	
Management Goal	Deliver coordinated programs to reduce population and impacts through selective baiting and trapping.
Performance Indicator	Reduction of impacts from feral pig or wild dog on primary industry and environment, reduction of feral pig or wild dog numbers, successful delivery of selective baiting and trapping to minimise impacts.
Strategic Actions	• To ensure that all landholders in management area participate/contribute to programs. • Promote individual landholders and other departments on their lands to monitor populations and impacts of target pest. • Facilitate public awareness programs such as displays at local field days and run awareness talks with landholders in high-risk areas. • Feral pig traps to reduce impacts in peri urban areas.
Project Partners	Mareeba Shire Council, Landholders, Biosecurity Queensland.

Feral Deer	
Management Goal	Map distribution of feral deer in the shire
Performance Indicator	Mapping of populations.
Strategic Actions	• To ensure that all landholders participate/contribute to programs. • Promote individual landholders and other departments on their lands to monitor populations and impacts of target pest. • Facilitate public awareness programs such as displays at local field days and run awareness talks with landholders in high-risk areas. • Control isolated deer populations.
Project Partners	Mareeba Shire Council, Landholders, Biosecurity Queensland., Queensland Parks and Wildlife Service.

8.1 Key objectives and actions

This table summarises the Plan's objectives and the results they are intended to achieve through coordinated action.

Table 5 Key objectives and outcomes

Key objectives	Key Objectives
1.	• The introduction, establishment and spread of invasive plants and animals are prevented.
2.	• Stakeholders are committed to and undertake coordinated management of invasive plants and animals.
3.	• Strategic directions are established, maintained and owned by stakeholders.
4.	• Stakeholders are informed, knowledgeable and have ownership of invasive plant and animal management
5.	• Integrated systems for managing the impacts of established invasive plants and animals are developed and widely implemented

Action Plan: - The introduction, establishment and spread of invasive plants and animals are prevented					
Desired Outcome 1	**Issue**	**Strategic Objective**	**Strategic Action**	**Success Criteria**	**Success Indicators**
Introduction of invasive plants and animals is prevented through strong biosecurity systems.	Pathways such as trade, transport, and movement of soil, machinery, and plants enable new species to enter.	Identify, monitor, and manage key pathways to prevent invasive species from entering the region.	• Strengthen compliance and enforcement of biosecurity regulations.	• Reduced risk of invasive plants and animals entering the region.	• Number of inspections and compliance checks. • Adoption rate of hygiene practices.
Spread of invasive plants and animals is detected early and contained.	New incursions may spread quickly without rapid detection and response.	Maintain surveillance and rapid response protocols.	• Provide information sessions on invasive species identification.	• Early detection and containment actions are effective. • Incursions are eradicated before widespread establishment.	• Number of community/industry reports. • Response time from detection to action. • Incursions successfully contained or eradicated.
Community and industry actively support invasive species prevention.	Low awareness and engagement increase the risk of spread.	Enhance awareness, capacity, and participation in biosecurity measures.	• Run community awareness campaigns. • Deliver information sessions and workshops. • Encourage reporting to relevant authorities.	• Strong community and industry participation in prevention. • Improved knowledge and proactive biosecurity practices	• Number of campaigns and workshops delivered. • Participation levels. • Number of reports received.

Action Plan: Stakeholders are committed to and undertake coordinated management of invasive plants and animals					
Desired Outcome 2	**Issue**	**Strategic Objective**	**Strategic Action**	**Success Criteria**	**Success Indicators**
Stakeholders demonstrate long-term commitment to pest and weed management.	Competing priorities (e.g., production vs. conservation); limited resources to maintain long-term programs.	Strengthen and sustain stakeholder commitment	• Provide information to landholders for pest management planning. • Promote clear roles and responsibilities under legislation.	Stakeholders actively prioritise pest and weed management as part of core business operations.	• Stakeholders with plans. • Ongoing participation in weed and pest eradication programs.
Coordinated control programs target priority pests across boundaries	Unaligned pest control allows reinfestation	Implement strategic, cross-boundary pest control programs.	• Facilitate joint aerial control programs. • Monitor results collectively.	Effective, sustained reduction in priority pest species across multiple properties.	• Coordinated control programs delivered annually • Measurable reduction in targeted pest populations. • Positive feedback from participants.
Partnerships between agencies, landholders, Traditional Owners, and community groups are strong and collaborative.	Limited funding/resources to support partnerships; risk of duplication of effort.	Strengthen cross-sector partnerships and collaboration.	• Support joint on-ground projects, with neighbouring Councils and local NRM groups. • Share resources, knowledge, and equipment between organisations.	Partnerships deliver coordinated and efficient pest and weed management outcomes.	• Partnership established. • Cross-boundary collaborative projects. • Joint resource-sharing initiatives
Stakeholders work together to achieve shared outcomes for pest and weed management	Differing priorities and expectations; lack of a shared vision or consistent approach.	Build shared ownership of pest and weed management goals	• Facilitate cross-boundary planning sessions and workshops, through PMAC, and other methods	Stakeholders act collectively with a common vision.	• Participation in regional workshops. • Evidence of collective outcomes reported.
Shared resources and expertise enhance pest management outcomes.	Smaller landholders and groups lack access to equipment, funding, and expertise.	Facilitate resource-sharing and capacity building among stakeholders	• Equipment loan schemes (pig traps). • Apply for joint funding grants.	Increased access to tools and expertise for coordinated pest management.	• Number of grant applications submitted annually. • Satisfaction rate from stakeholders accessing support.

Action Plan: Strategic directions are established, maintained and owned by stakeholders					
Desired Outcome 3	**Issue**	**Strategic Objective**	**Strategic Action**	**Success Criteria**	**Success Indicators**
Stakeholders collaboratively establish, maintain, and own strategic directions for pest and weed management	Fragmented responsibility among stakeholders	Ensure inclusive, transparent, and accountable collaboration across all stakeholders.	• Establish transparent communication channels.	• Ongoing commitment and accountability. • Clear governance and communication in place.	• Number and diversity of stakeholders engaged. • Frequency of consultation sessions. • Stakeholder satisfaction levels.
Shared responsibility and ownership of pest and weed management outcomes across all sectors.	Limited alignment of efforts between community, industry, and government.	Foster joint accountability and cooperative action for pest and weed outcomes	• Develop partnerships. • Encourage joint projects and funding bids. • Build capacity in local groups and industry partners.	• Increased collaboration across sectors. • Shared initiatives demonstrate collective action.	• Number of joint projects undertaken. • Co-funded initiatives.
Strategies are adaptive, evidence-based, and supported by continuous improvement	Strategies become outdated or fail to respond to emerging threats.	Monitor, evaluate, and improvement of strategies.	• Report outcomes annually. • Integrate new research and technology.	• Strategies remain relevant and effective • Stakeholders recognise ongoing improvement.	• Updated strategies with evidence-based changes. Adoption of new technologies.
Prevention systems are adaptive, evidence-based, and continuously improved	Biosecurity measures may become outdated or fail to respond to emerging threats.	Maintain dynamic and evidence-based prevention frameworks that respond to changing risks.	• Review prevention measures annually. • Integrate new technologies (e.g., drones, eDNA monitoring). • Share data and lessons learned across stakeholders.	• Prevention strategies remain current and effective. • New tools and technologies are applied to prevention efforts.	• Updated prevention frameworks documented. • Adoption of new technology in surveillance and monitoring.

Action Plan: Stakeholders are informed, knowledgeable and have ownership of invasive plant and animal management					
Desired Outcome 4	**Issue**	**Strategic Objective**	**Strategic Action**	**Success Criteria**	**Success Indicators**
Stakeholders are informed, knowledgeable and committed to invasive plant and animal management.	Limited awareness among community, landholders, and other stakeholders about pest plant and animal impacts and responsibilities.	Increase stakeholder knowledge, engagement, and shared responsibility in pest and weed management.	• Deliver targeted awareness campaigns (fact sheets, website, social media). • Encourage reporting of invasive plants.	Community and stakeholders demonstrate improved understanding of pest management obligations	• Awareness campaigns delivered annually. • Increase in invasive species reporting. • Stakeholders show improved knowledge.
Active landholder participation in pest management programs	Landholders may not undertake timely or adequate control of invasive plants and animals.	Improve landholder compliance and participation in coordinated management efforts.	• Promote the General Biosecurity Obligation (GBO) under the Biosecurity Act. • Support local pest management groups.	Increased landholder compliance and timely pest control actions	• Landholders demonstrate GBO awareness. • Increase in landholders participating in council programs.
Strong community partnerships support pest and weed management.	Limited collaboration between council, community, and external organisations	Build and maintain partnerships to share resources, expertise, and responsibility	• Collaborate with Landcare, Traditional Owners, and industry groups. • Establish joint projects (weed control days, feral animal monitoring).	Evidence of collaborative projects delivering shared pest management outcomes.	• Community projects conducted School program delivered, as required.

Action Plan: - Integrated systems for managing the impacts of established invasive plants and animals are developed and widely implemented					
Desired Outcome 5	**Issue**	**Strategic Objective**	**Strategic Action**	**Success Criteria**	**Success Indicators**
A coordinated and collaborative system is established for managing invasive species across landscapes	Current management efforts are fragmented and often duplicated between stakeholders.	Work on an integrated frameworks that connect government, industry, and community efforts	• Participate in regional partnerships and joint planning frameworks. • Share resources, expertise, and data.	• Strong cross-sector collaboration	• Stakeholder participation rates. • Examples of shared funding, staff, or equipment.
All landholders and communities share responsibility for managing invasive species.	Limited resources and uneven participation hinder success.	Strengthen community, industry, and government partnerships for shared responsibility.	• Provide training, tools, and resources to local groups. • Establish co-investment and incentive schemes. • Celebrate and reward community achievements.	• Broad and sustained participation in management activities. • Resources and costs are shared across stakeholders.	• Number of landholders and groups actively involved. • Increased community reporting and action.

8.2 Alert Species

Pest plant and animal alert species in (table 5 and table 6) have been found in North Queensland local government areas but have not yet been discovered in the Mareeba Shire region despite suitable habitats. Department of Agriculture and Forestry has detailed species information.

The community has a responsibility to be vigilant and reports can be submitted to the Mareeba Shire Council through one of the following methods:

- Phone 1300 308 461
- Email info@msc.qld.gov.au
- Visit the customer service centres at
    - 65 Rankin Street, Mareeba
    - Kuranda Library 18-22 Arara Street, Kuranda.

8.3 Invasive Plant Alert Species

The following tables include information about invasive plants and animals which may be found in the MLGA and how they can be spread.

Table 6 Invasive Plants which could be found in the MLGA

Species	Common name	Scientific name	Vicinity	Likely source and mode of spread
	Bunny Ears Cactus	*Opuntia microdasys, O.leucotricha, O.rufida*	Mareeba and Cairns	Nursery and ornamental gardens
	Bog Moss	*Mayaca fluviatilis*	Cassowary Coast	Aquariums and water plants
	Brillantaisia	*Brillantaisia lamium*	Douglas, Cairns and Cassowary Coast	Machinery, vehicles, livestock and potted plants
	Cha-om or Pennata wattle	*Senegalia insuavis*	Cairns, Whitsunday Regional Council	Private gardens
	Hiptage	*Hiptage benghalenses*	Douglas Shire	Ornamental gardens and wind
	Hygrophilla	*Hygrophila costata*	Cairns, Cassowary Coast & Hinchinbrook	Aquariums and water plants
	Limnocharis	*Limnocharis flava*	Cairns, Cassowary Coast and Townsville	Aquariums and water plants
	Madras Thorn	*Pithecellobium dulce*	Cairns and Cassowary Coast	Ornamental gardens
	Mexican Bean tree	*Cecropia species*	Douglas, Cairns, Cassowary Coast	Ornamental gardens, birds and flying foxes
	Mimosa	*Mimosa pigra*	Northern Territory and Mackay	Boats and fishing gear

Species	Common name	Scientific name	Vicinity	Likely source and mode of spread
	Water Mimosa	*Neptunia oleracea and N. plena*	South-east QLD, Cairns	Private gardens and flood events
	Sagitaria	*Sagittaria platyphylla*	Townsville, Mackay and South-east Queensland	Aquariums and water plants
	Crofton Weed	*Ageratina adenophora*	Tableland Regional Council Southeast Queensland	Ornamental gardens Machinery, vehicles & animals
	Baleria or porcupine flower	*Barleria prionitis*	Townsville, Boigu Island	Prickly shrub, grown in gardens

Table 7 Pest animals which could be found in the MLGA

Species	Common name	Scientific name	Vicinity	Likely source and mode of spread
	Asian Spiny Toad	*Bufo melanostictus*	Cairns	Transport via plane or sea
	American Corn Snake	*Pantherophis guttatus*	Cairns	Pet trade
	Fox	*Vulpes*	Central Queensland	Natural migration
	Red-eared Slider Turtle	*Trachemys scripta elegans*	South-east Queensland (eradicated)	Aquariums and pet trade
	Fall Army Worm	*Spodoptera frugiperda*	Far North Queensland, Torres Strait	Transport via plane or sea

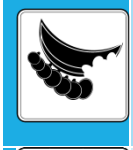
9 Action Plans for Control of Priority Plant Pest and Animal Species

Action plans have been developed for priority pest plant and animals which occur in the local government area. The action plans detail specific requirements and strategies for management in addition to what is required of all people under the general biosecurity obligation. The action plans outline management objectives based on established principles of pest management and are designed to assist all stakeholders to:

- Understand the biology and distribution of priority pest plant and animals.
- Implement appropriate strategic actions at the most appropriate time to have the greatest impact on the targeted pest (best management practice) and ensure they meet their general biosecurity obligation.

Plan and coordinate pest management activities with neighbouring properties by targeting common management objectives and goals within relevant geographic areas.

Table 8 Key to control method icons

Key to control methods which can be found in the biosecurity action plans		
	**Frill or stem injection**	Herbicide can be applied to woody weeds and trees via cuts or frills made close to the ground around the trunk or stem. This approach is best used when it is ok to leave the dead plant standing.
	**Basal bark**	Herbicide can be applied to woody weeds or vines with a low-pressure spray (which usually includes diesel or synthetic oil) to the lower stem. This method is not suited to use near or in water ways.
	**Cut stump**	Many vines, trees and woody weeds can be controlled by applying herbicide to the freshly cut stem. The application is made quickly with a dabber or spray before the plants vascular tissue closes over.
	**Chop or grub**	Many weeds can be selectively managed manually by grubbing or chopping. This approach is useful for reducing the competition from weeds while native vegetation or desirable plants re-establish.
	**Drill/stem injection**	Herbicide can be applied as a measured dose into evenly spaced, downward-facing holes drilled near the base of each stem. Cordless or petrol- powered drills are usually used due to their portability.
	**Best practice grazing**	Carefully managing stocking rates will keep healthy groundcover which provides competition for many weeds. Grazing can also be used in some situations to knock weeds down prior to control.
	**Hand removal**	Many weeds can be removed manually, particularly when they are at a seedling stage. Hand weeding is very selective and can be used where as little as possible disturbance is required.
	**Foliar spray**	Most weeds can be controlled at various life stages by applying herbicide via a spray. Sprays applicators can be low or high pressure and are suited to covering larger areas or dense infestations.
	**Biocontrol**	The release of carefully selected natural pests or diseases of plants and animals can control them, or to interrupt their reproduction. Biocontrol is most effective when integrated with other control tools.
	**Slashing**	Slashing can often be used to reduce the growth or reproduction of many weeds and is particularly useful before other control actions. Timing is critical in order to prevent the spread of seeds or fragments.
	**Mechanical removal**	Large scale infestations may require mechanical removal or control. Machinery can also be used to clean up after control activities but will usually require follow-up to control and prevention work.
	**Fire**	A well planned and timed fire can be a very effective management tool which can reduce or stimulate dormant seeds or control living plants. It is most suited to fire adapted vegetation types.

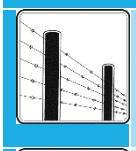
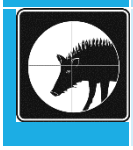
Key to control methods which can be found in the biosecurity action plans		
	**Exclusion fencing**	There are a wide range of fencing materials and designs to protect domestic and agricultural assets. Fencing can also be used manage grazing pressure or access to reduce weed or disease spread.
	**Pesticide**	Pesticides are used in certain situations to control anything from ants to wild dogs. There are strict usage and permitting requirements for many pesticides. They can be an effective tool over large areas.
	**Trapping**	Trapping is widely used for feral pigs but can also be used to control wild dogs, feral cats and feral deer. Trapping is labour intensive but can very target specific when conducted using best practice tools.
	**Shooting**	Shooting or hunting is sometimes used to control individual animals. It is usually less effective and even disruptive to other control strategies but is a useful tool to supplement trapping and baiting.

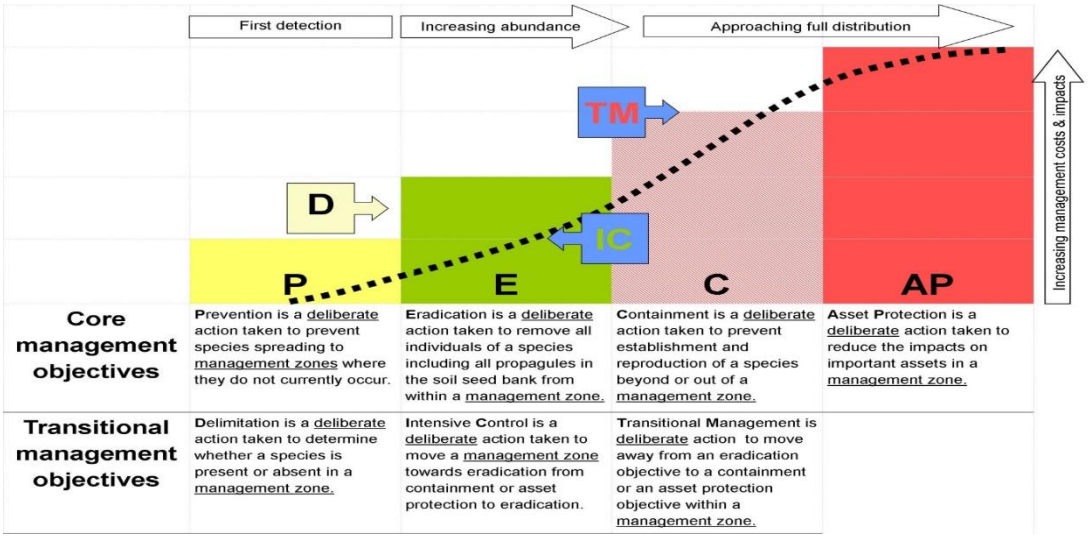
Table 9 Key to mechanism of spread

Key to mechanism of spread		
	**Droppings**	Many plants have evolved to use animals to spread seeds by producing a tasty fruit. Seeds are eaten along with the flesh of the fruit and can be dispersed in droppings up to kilometres away.
	**Illegal dumping**	Deliberate or accidental spread of many plants can occur when green waste is not disposed of responsibly. Areas of bushland, creeks and farmland often suffer impacts from dumped garden plants.
	**Machinery and vehicles**	Slashers and earthworks equipment are most commonly blamed, for moving pests, but cars, 4wds, motorcycles, boats and caravans are all capable of moving pest plants and animal's great distances.
	**People and animals**	Some plants have seeds adapted to stick to and hitch a ride on passing animals and can move long distances attached to animals' fur or peoples' clothing.
	**Stock, raw materials & produce**	Raw materials and produce including hay, animal feed, seed mixes and even livestock can contain or carry weed seed or other biosecurity risks like invasive ants, pathogens or diseases.
	**Vegetative**	Many plants can spread from cuttings, stem or root fragments. For some species this is their primary means of reproduction but for others it is in addition to producing seeds or spores.
	**Water**	Many aquatic plants rely entirely on water to spread their seeds. Others have seeds or fragments which can float for long distances and move during regular flows or on flood events.
	**Wind**	Many plants have seeds which are lightweight with attachments to help them glide or float on the air or in the wind. The lightweight seeds can also get caught on vehicles and clothing.

10 Appendix 1 Action Plan Management Zones and Control Methods

The action plans use catchment-based management zones to identify the location-specific management actions required for each priority pest plant and animal. The management zones are based on the pest management concept of the 'invasion curve'. The invasion curve describes how as a biosecurity issue becomes more abundant over time the management options and strategies available to manage it or its impacts also change. At each stage of the curve, as the area occupied by the pest or weed increases, the implied impact and required resources to respond also increase.

The key message is that prevention and early intervention are the most cost-effective (proactive) actions we can take. When these actions are not successful, we need to carefully consider the most strategic (reactive) management approaches to ensure local impacts and potential spread to new areas is reduced.



	P	E	C	AP
Core management objectives	Prevention is a deliberate action taken to prevent species spreading to management zones where they do not currently occur.	Eradication is a deliberate action taken to remove all individuals of a species including all propagules in the soil seed bank from within a management zone.	Containment is a deliberate action taken to prevent establishment and reproduction of a species beyond or out of a management zone.	Asset Protection is a deliberate action taken to reduce the impacts on important assets in a management zone.
Transitional management objectives	Delimitation is a deliberate action taken to determine whether a species is present or absent in a management zone.	Intensive Control is a deliberate action taken to move a management zone towards eradication from containment or asset protection to eradication.	Transitional Management is deliberate action to move away from an eradication objective to a containment or an asset protection objective within a management zone.	

Figure 2 Action plan management objectives

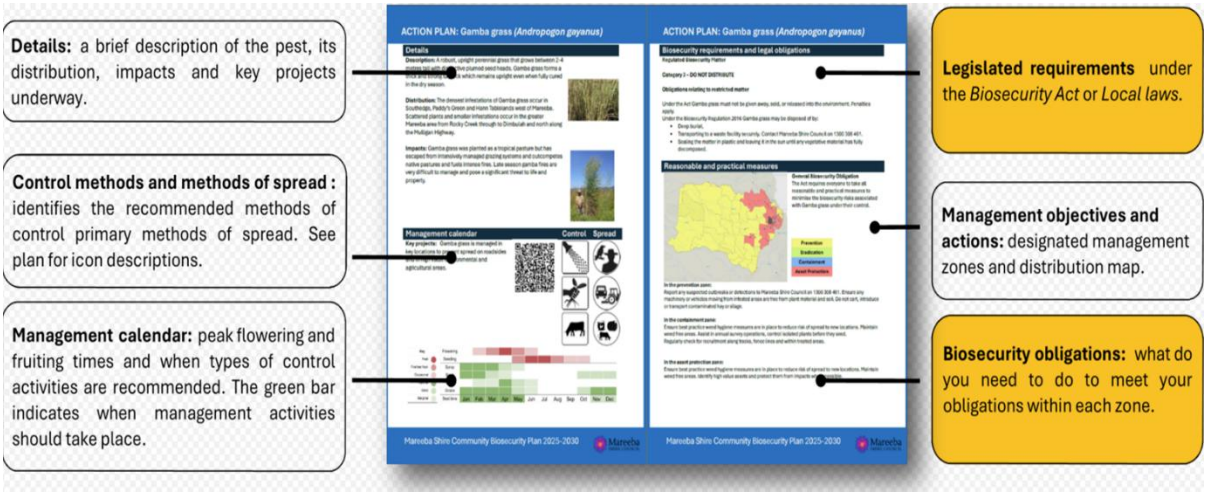


Figure 3 Action plan explanation

ACTION PLAN: Amazon frogbit (*Limnobium laevigatum*)

Details

Description: A floating, mat-forming aquatic plant with dangling roots and glossy semi-circular leaves which are spongey underneath. As the leaves mature, they are held more upright on swollen stems. Mature plants may reach up to 50cm tall. Flowers are small, white and form a fleshy berry-like capsule which is usually held under the water or in the mud.

Distribution: Amazon frogbit was initially detected in Granite Creek and has subsequently entered the Barron River due to spread on flood waters. It is not currently known to occur in the gulf watersheds but may be in use in home aquariums or traded on social media.

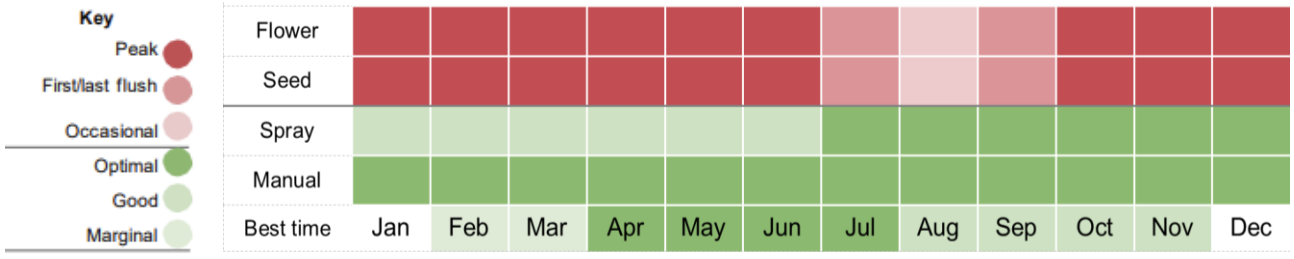
Impimpacts: Amazon frogbit is a floating aquatic weed that can smother and choke waterways. It grows in still or slow-moving water and can rapidly expand to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange impacting fish and aquatic organisms.

Management calendar

Key projects: A sentinel site project is in place to detect outbreaks into the gulf catchments. Control works to protect key assets are undertaken as required. Downstream infestations in the Barron River are often temporarily cleared by wet season floods. A top of infestation management program on along Chinaman and Atherton Creeks is continuing

Control

Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Amazon frogbit (*Limnobium laevigatum*)

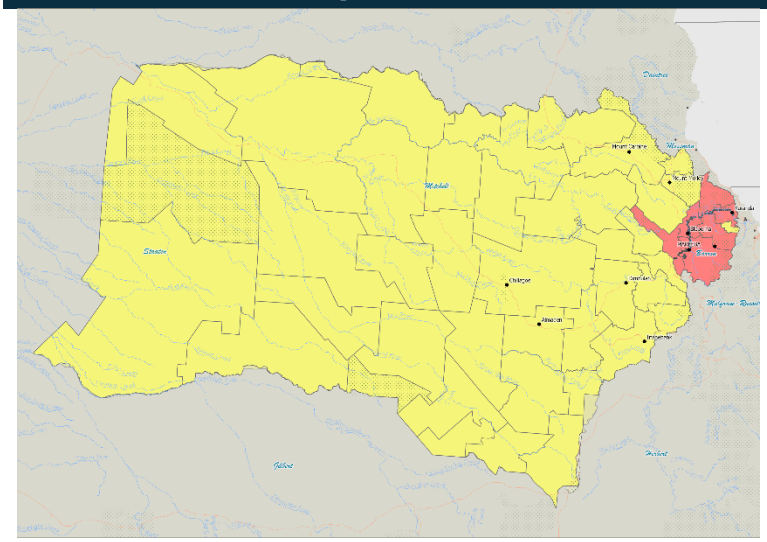
Biosecurity requirements and legal obligations

Declared Local Pest

DO NOT SELL OR SUPPLY
DPO NOT OFFER OR DISPLAY FOR SALE OR SUPPLY
DO NOT INTRODUCE, PROPAGATE OR BREED

Amazon frogbit is a locally declared plant under Mareeba Shire Council Local Laws. It is also locally declared in the Cairns, Cassowary Coast and Tablelands local government areas. It is an offence under Local Law to distribute or propagate. Penalties apply.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Amazon frogbit under their control.

Prevention
Eradication
Containment
Asset Protection

in the prevention zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

You are responsible to know what you are buying online or at local markets to ensure you don't unintentionally introduce Amazon frogbit from a contaminated source.

Be responsible and do not dump garden pond or fish tank contents into waterways.

In the asset protection zone:
Remove and bag specimens from water features and dispose of accordance with the regulation. Contact Mareeba Shire Council on 1300 308 461 if you require advice on disposal.

If you have Amazon frogbit in your possession do not share contaminated material including aquatic plants and do not dump garden pond or fish tank contents into waterways.

You are responsible to know what you are selling online or at local markets to ensure you don't unintentionally spread Amazon frogbit.

ACTION PLAN: Bellyache bush & physic nut (*Jatropha spp.*)

Details

Description: A squat, thick stemmed shrub 2.4-4m tall. Seedlings single stemmed with deeply divided purple leaves. Mature leaves are a brighter green with up to 5 lobes and coarse dark brown hairs on the margins. Small red flowers followed by green fleshy pods. Physic nut (*J. curcas*) is a similar plant to *J. gossypiifolia* with pale veined large green leaves that are less deeply lobed.

Distribution: Bellyache bush is currently restricted to riparian areas in the Lower Walsh River and Emu Creek but is readily spread on floodwaters so may be present in the gulf plains. Infestations are known from the Palmer River to the north and Charters Towers area to the south.

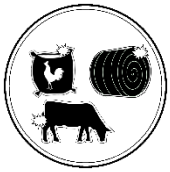
Impacts: The fruits are poisonous to humans and livestock which when eaten lead to symptoms of gastroenteritis and sometimes death. Bellyache bush has a devastating impact on rangeland river systems and pastures.

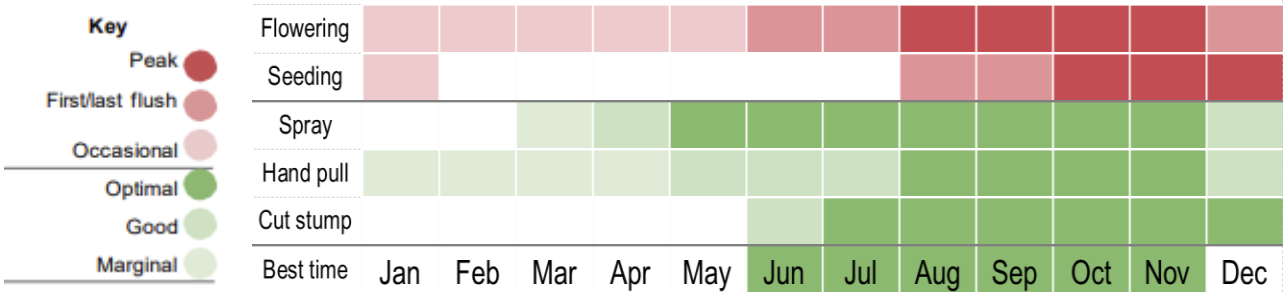
Management calendar

Key projects: A containment area is in place to prevent the spread into the Staaten River catchment form Mitchell River.

Control

Spread





Mareeba SHIRE COUNCIL

ACTION PLAN: Bellyache bush & physic nut (*Jatropha spp.*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

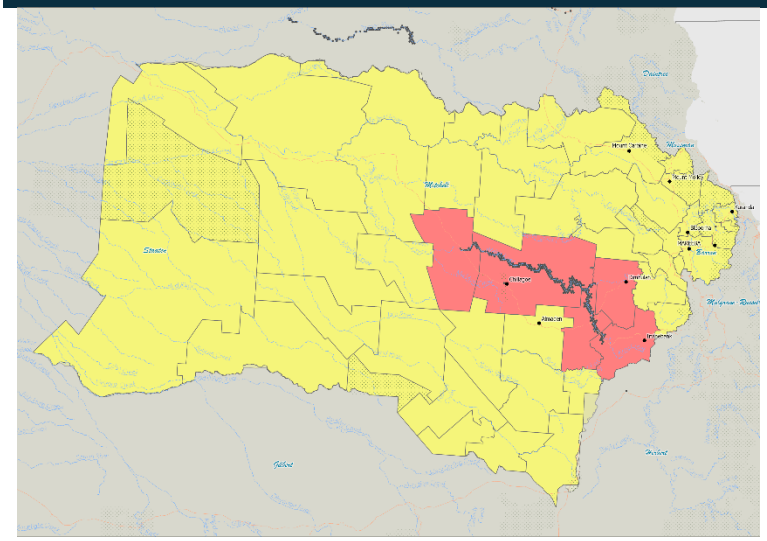
Category 3 – DO NOT DISTRIBUTE

Under the Act bellyache bush must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 bellyache bush may be disposed of by:

- Deep burial,
- Transporting to a waste facility securely. Contact Mareeba Shire Council on 1300 308 461.
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with bellyache bush under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Report any suspect plants to Mareeba Shire Council on 1300 308 461.

To prevent spread to new locations or introduction from known infestations ensure machinery, vehicles and raw materials are free from soil which may contain seed.

Spell stock in holding yards for 7 days prior to releasing to pasture/rangeland to allow for seed to pass through the gut or fall from hooves and hide.

In the asset protection zone:
Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations.

Regularly check for recruitment along tracks, water courses, fence lines and in areas near known infestations. Control isolated plants before they seed.

You are responsible to ensure materials or products leaving your property are free from bellyache bush seed or plant material. Do not move or sell contaminated produce, soil and spell stock for at least 7 days prior to movement.

ACTION PLAN: Thunbergia (*Thunbergia grandiflora*)

Details

Description: A rapidly growing vine which forms large underground tubers. Thunbergia climbs and smothers native vegetation. Thunbergia has lavender-blue trumpet shaped flowers. The leaves may vary from a choko-like shape to an oval with a narrow-pointed tip.

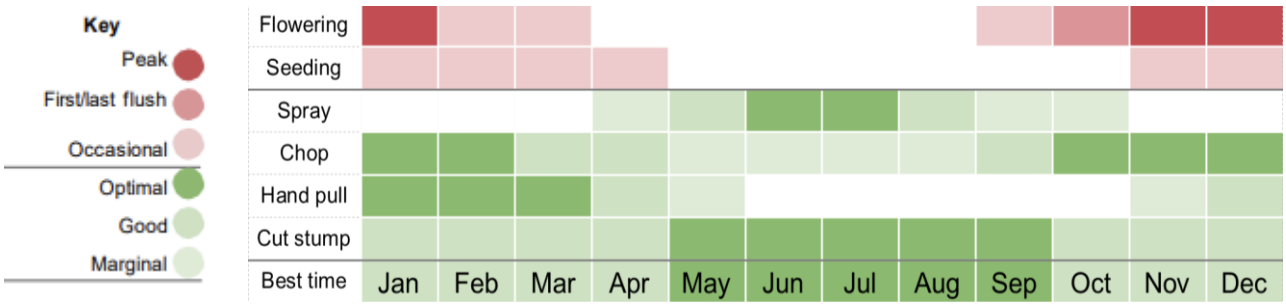
Distribution: Thunbergia vine occurs as a significant infestation and scattered locations in the Kuranda area and at several isolated outbreaks near Myola, Speewah and Julatten. The main method of spread for Thunbergia vine has been through the sharing plants between gardeners so most infestations are associated with house gardens.

Impacts: Thunbergia vine climbs and smothers native vegetation, killing and often pulling down mature trees with the weight of the vine.

Management calendar

Key projects: Eradication of infestation from dumped garden waste in Julatten.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Thunbergia (*Thunbergia grandiflora*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

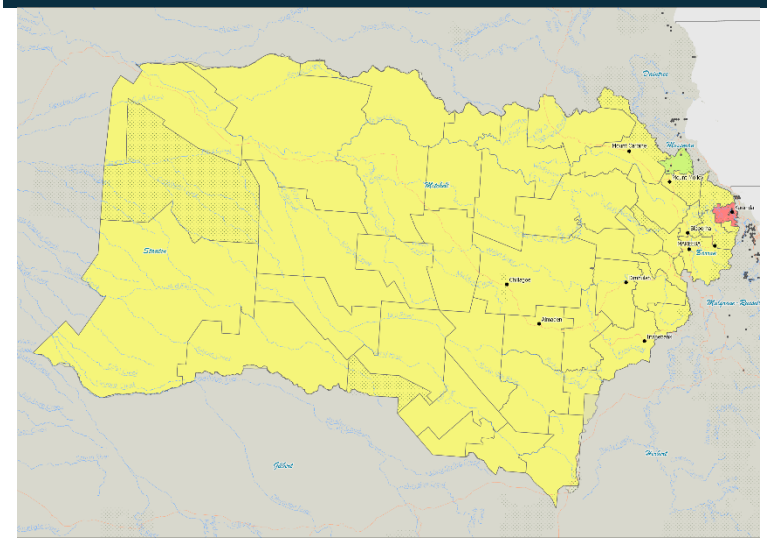
Category 3 – DO NOT DISTRIBUTE

Under the Act thunbergia must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 thunbergia may be disposed of by:

- Deep burial,
- Transporting to a waste facility securely. Contact Mareeba Shire Council on 1300 308 461.
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with thunbergia under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Report any suspect plants to Mareeba Shire Council on 1300 308 461.

In the eradication zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Landholders can assist the program by maintaining easy access to treatment areas or by assisting council staff during control activities.

If your property has an active infestation, make sure your green waste does not contain thunbergia and is disposed of in accordance with the regulation.

In the asset protection zone:
Manage risk of spread from your property and protect priority assets using best practice methods to control infestations where practical to do so.

If your property has an active infestation, make sure your green waste does not contain live plant material and is not disposed of in areas where the plant might establish like creeks and bushland.

ACTION PLAN: Feral cat (*Felis catus*)

Details

Description: Cats have a long history of naturalisation in Australia. A feral cat is any non-domestic cat which is not owned by a person. They have the same markings to domestic cats but may be larger in size particularly around the head and shoulders. Their fur is generally short, and they may be any colour. Males may weigh up to 6 kg, females up to 4 kg. They are usually most active at night.

Distribution: Feral cats are present in all areas of mainland Australia and many islands.

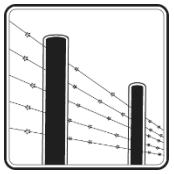
Impacts: Feral cats eat any small to medium prey item they can catch including birds, reptiles, amphibians, mammals, fish and insects. They compete directly with native carnivores and are a definitive host of toxoplasmosis which can be transmitted to birds and other mammals including humans. Feral cats may scavenge around towns and may prey on domestic pets and poultry.

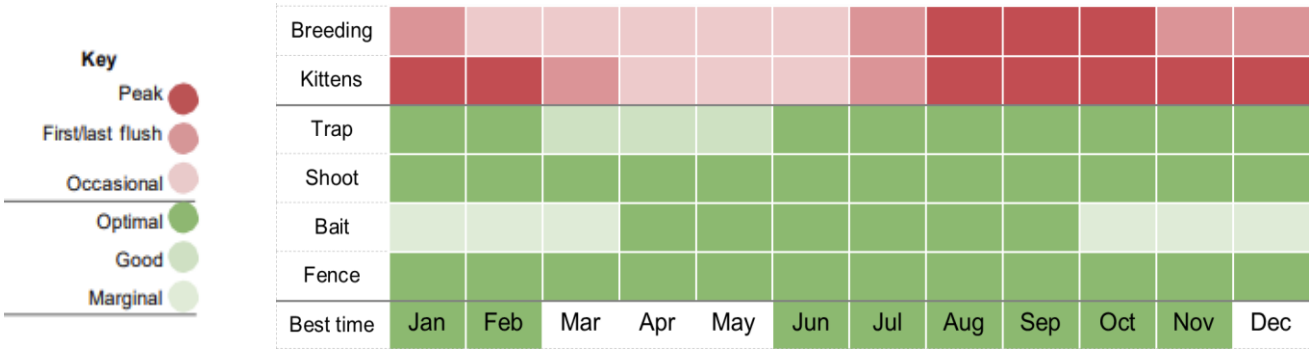
Management calendar

Key projects:
In urban and settled areas Mareeba Shire Council will respond to individual issues as they arise on a case-by-case basis.

Control

Spread





Mareeba SHIRE COUNCIL

ACTION PLAN: Feral cat (*Felis catus*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 6 – DO NOT FEED

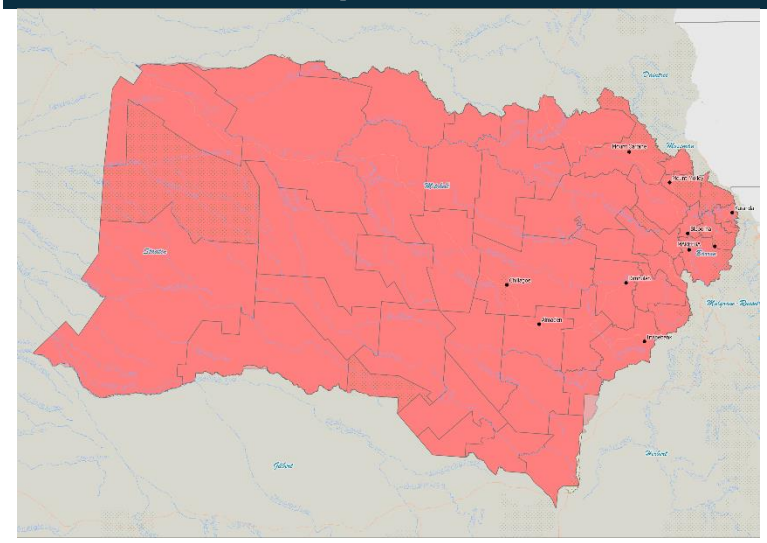
Under the Act you must not move, keep, feed, give away, sell or release feral or unowned cats into the environment. Penalties apply.

Local Laws

Mareeba Shire Council has laws and regulations (Local Law 2) concerning animals. It is an offence to:

- Keep more than two cats on any property (without an approval)
- To allow cats to wander onto public or other private property
- Or to keep cats without a microchip

Reasonable and practical measures



General Biosecurity Obligation

The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with feral and unowned cats under their control.

Prevention
Eradication
Containment
Asset Protection

In the asset protection zone:

Feral cats are restricted matter under the Biosecurity Act 2014. They must not be moved, fed, given away, sold, or released into the environment without a permit. This includes releasing or dumping of domestic cats or feeding of unowned cats. The description of feral cat includes Bengal cat hybrids derived from *Prionailurus bengalensis x Felis catus*.

Any other species of cat is prohibited in Queensland and must be reported within 24 hours to Biosecurity Queensland on 13 25 23.

Domestic cats are managed in accordance with Mareeba Shire Councils local laws.

ACTION PLAN: Feral deer

Details

Description: A feral deer is any deer not contained within an escape proof enclosure. Rusa (*Cervus timorensis*) are the main feral deer known in the Mareeba Shire. Other pest deer that may be present in the region include Red Deer (*Cervus elaphus*), Fallow Deer (*Dama dama*) and Chital deer (*Axis axis*).
Refer to the Deer Scan website for more information on identification.

Rusa deer

Distribution: Rusa deer are known from the Speewah and Koah areas. Chital and Rusa deer may also be present in the western regions.

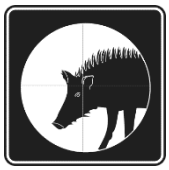
Impacts: Feral deer pose a serious traffic hazard, and may harass stock, compete for pasture or damage crops and gardens. They can be aggressive to people or gore domestic animals. Deer cause significant environmental damage from grazing/browsing, contributing to erosion, fouling water points and competing for resources. Feral deer may carry diseases of livestock.

Chital deer

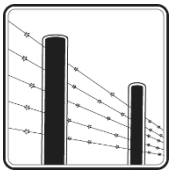
Management calendar

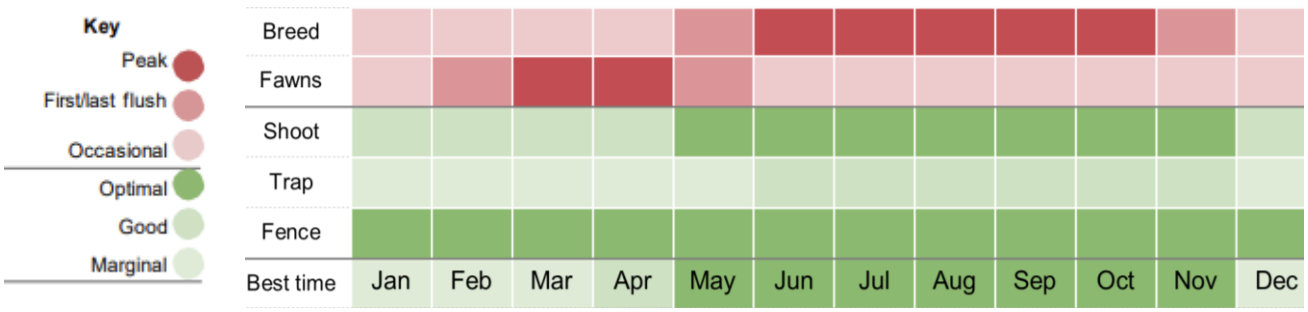
Key projects:
In urban and settled areas Mareeba Shire Council will respond to individual issues as they arise on a case-by-case basis.

Control



Spread





ACTION PLAN: Feral deer

Biosecurity requirements and legal obligations

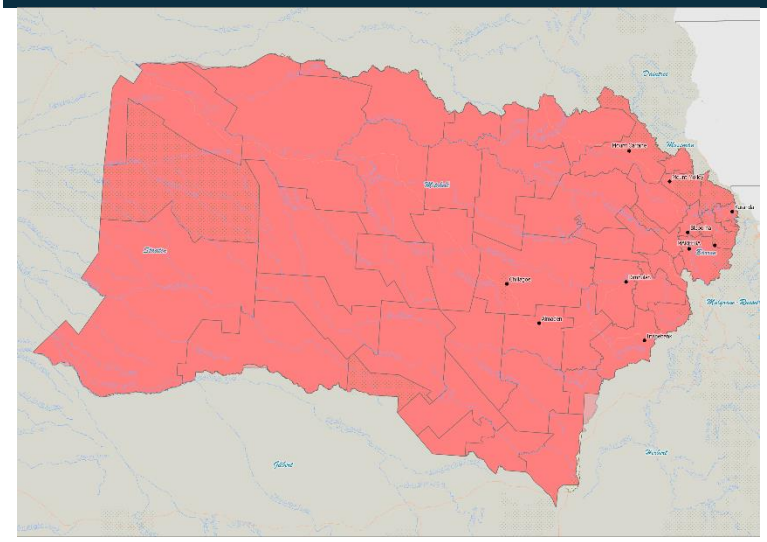
Regulated Biosecurity Matter

Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 6 – DO NOT FEED

Under the Act you must not move, keep, feed, give away, sell or release feral deer into the environment. Penalties apply.

Local Laws
Mareeba Shire Council has laws and regulations (Local Law 2) outlining requirements for proper enclosures to contain animals.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with feral deer under their control.

Prevention
Eradication
Containment
Asset Protection

In the asset protection zone:
Farmed deer must be contained in a deer-proof enclosure. Deer contained within a deer-proof fence (e.g. on farms or in game parks) are not restricted invasive pests. Any deer not actively being farmed within a deer-proof fence is considered feral or wild and subject to control.

Fencing requirements are enforceable under Local Law No. 2 (Animal Management).

Landholders should consider various management solutions including fencing, enclosure traps and shooting, dependant on their location and capability.

ACTION PLAN: Feral pig (*Sus scrofa*)

Details

Description: Feral pigs include all pigs ranging from typical black wild pigs to buff or spotted black or white which may resemble a typical farmed pig. By definition, a feral pig is any pig which is not domesticated and is living in a wild state. They are generally nocturnal, and camp in thick cover during the day. Feral pigs are omnivorous and can range from 5 to 50 square kilometres. Feral pigs breed throughout the year often producing two weaned litters per year.

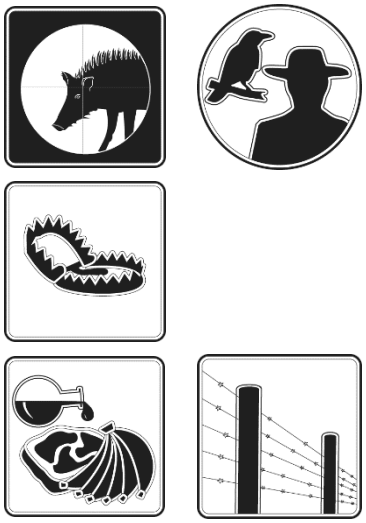
Distribution: Feral pigs occur across the entire region wherever there is access to water.

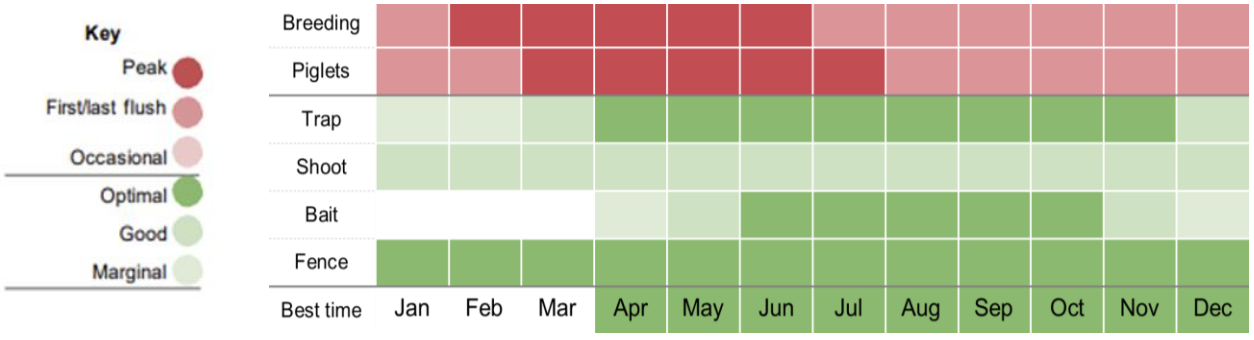
Impacts: Feral pigs damage crops, stock, property and the natural environment. They transmit disease and could spread exotic diseases such as foot and mouth if this was introduced to the country.

Management calendar

Key projects:
In urban and settled areas Mareeba Shire Council will respond to individual issues as they arise on a case-by-case basis.

Control **Spread**





Mareeba SHIRE COUNCIL

ACTION PLAN: Feral pig (*Sus scrofa*)

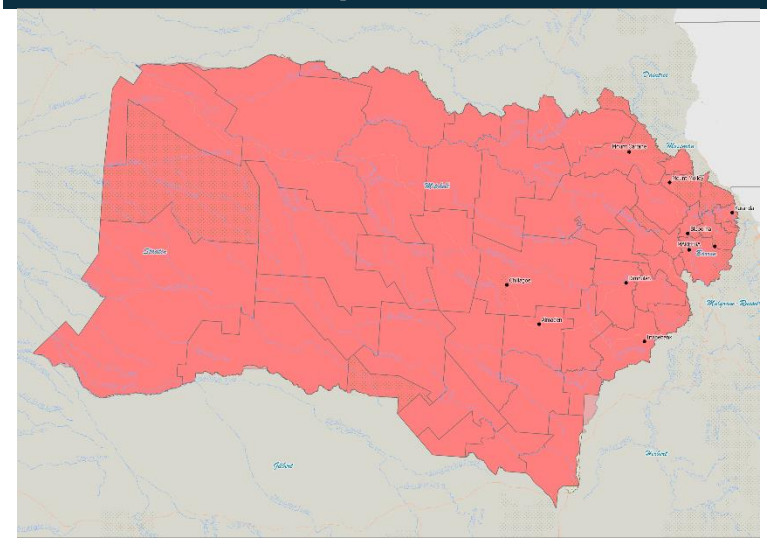
Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 6 – DO NOT FEED

Under the Act you must not move, keep, feed, give away, sell or release feral pigs into the environment. Penalties apply.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with feral pigs under their control.

Prevention
Eradication
Containment
Asset Protection

In the asset protection zone:
Pig proof fencing is by far the most effective measure for reducing the impacts of feral pigs on domestic gardens and small crops.

A range of control options from shooting, to trapping and baiting are used to control feral pigs when required.

Property managers should coordinate control activities with neighbours.

ACTION PLAN: Gamba grass *(Andropogon gayanus)*

Details

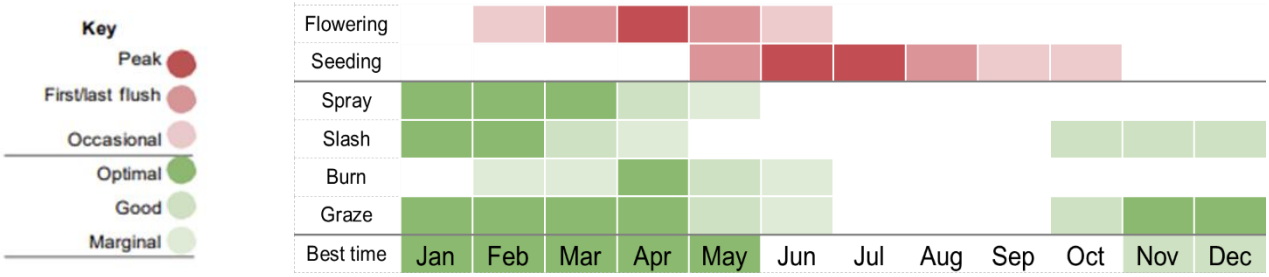
Description: A robust, upright perennial grass that grows between 2-4 metres tall with distinctive plumed seed heads. Gamba grass forms a thick and strong tussock which remains upright even when fully cured in the dry season.

Distribution: The densest infestations of Gamba grass occur in Southedge, Paddy's Green and Hann Tablelands west of Mareeba. Scattered plants and smaller infestations occur in the greater Mareeba area from Rocky Creek through to Dimbulah and north along the Mulligan Highway.

Impacts: Gamba grass was planted as a tropical pasture but has escaped from intensively managed grazing systems and outcompetes native pastures and fuels intense fires. Late season gamba fires are very difficult to manage and pose a significant threat to life and property.

Management calendar

Key projects: Gamba grass is managed in key locations to prevent spread on roadsides and in high value environmental and agricultural areas.



ACTION PLAN: Gamba grass *(Andropogon gayanus)*

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

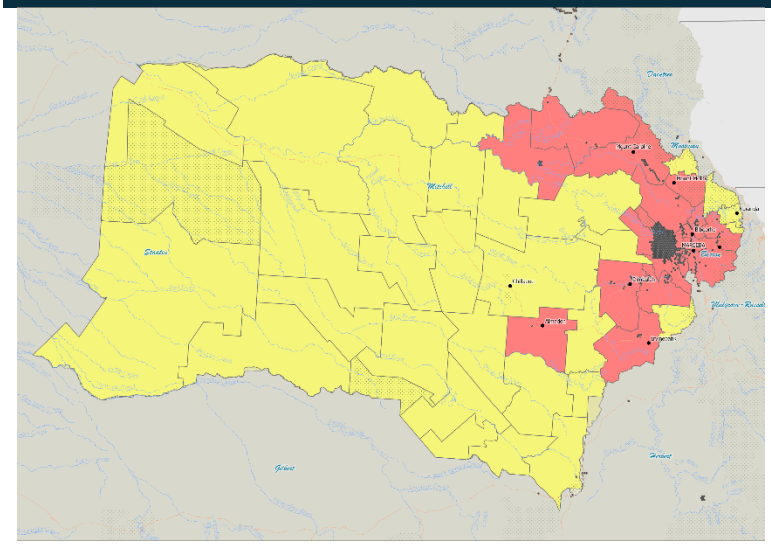
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter

Under the Act Gamba grass must not be given away, sold, or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016 Gamba grass may be disposed of by:

- Deep burial,
- Transporting to a waste facility securely. Contact Mareeba Shire Council on 1300 308 461.
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Gamba grass under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Report any suspected outbreaks or detections to Mareeba Shire Council on 1300 308 461. Ensure any machinery or vehicles moving from infested areas are free from plant material and soil. Do not cart, introduce or transport contaminated hay or silage.

In the containment zone:
Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Assist in annual survey operations, control isolated plants before they seed.
Regularly check for recruitment along tracks, fence lines and within treated areas.

In the asset protection zone:
Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Identify high value assets and protect them from impacts where possible.

ACTION PLAN: Rat's tail grasses (*S. pyramidalis & S. natalensis)*

Details

Description: A group of robust, upright perennial grasses 0.6 –1.7 metres tall. Flower spikes are about 40 cm long and transform from a distinctive dark 'rats-tail' shape when young to an open pyramid when mature. Leaves are narrow and tough and are rasp like to touch.

Distribution: Rat's tail grasses are scattered across most of the eastern Tablelands are but in higher densities in Mareeba and surrounds. These grasses generally prefer a drier savannah climate. *Sporobolus pyramidalis* and *Sporobolus natalensis* both occur in the region.

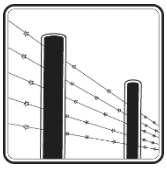
Impacts: rats tails grasses are large stature species which can drastically outcompete desirable pastures. They are unpalatable to stock causing selective over-grazing of native grasses. They are a major problem in over-stocked or disturbed systems. In natural systems they invades creek lines and woodlands in drier savannah environments. Rat's tail grasses are well adapted to fire.

Management calendar

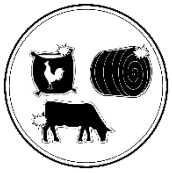
Key projects: Giant rat's tail grasses are targeted for control on roads and reserves to prevent further spread. Individual properties should ensure property is kept clean and fence lines /access tracks are managed.

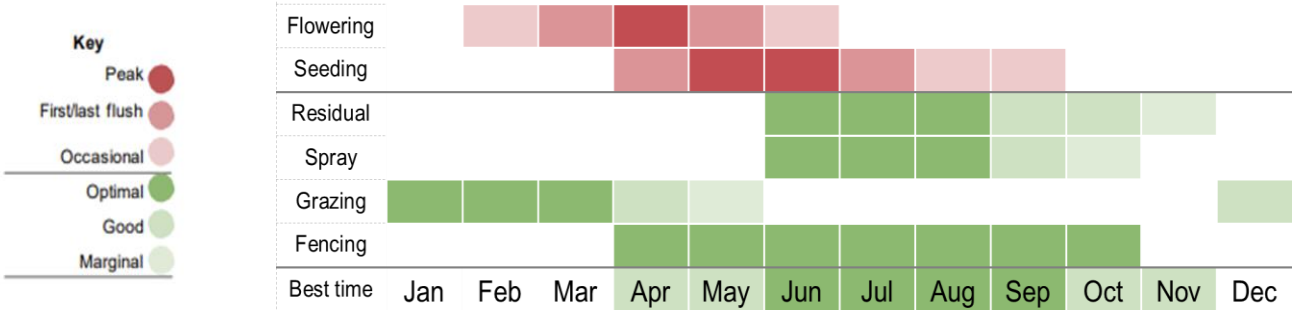
Identification of weedy Sporobolus grasses can be difficult. If a plant is detected outside of areas of known distribution a herbarium specimen should be collected to aid identification.

Control



Spread





ACTION PLAN: Rat's tail grasses (*S. pyramidalis & S. natalensis)*

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

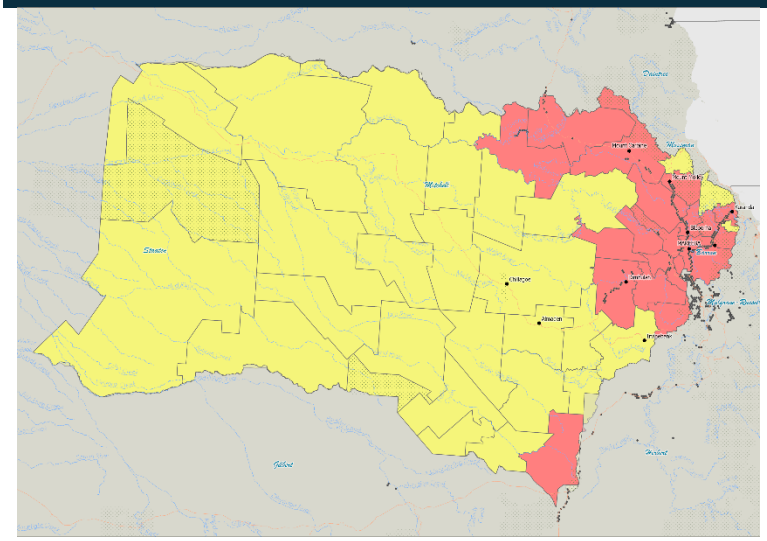
Category 3 – DO NOT DISTRIBUTE

Under the Act restricted Sporobolus species must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 restricted Sporobolus species may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with restricted Sporobolus species under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.

In the asset protection zone:
Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Control isolated plants before they seed. Regularly check for recruitment along tracks, fence lines and in areas adjacent to known infestations.

Spell any stock in a holding paddock for at least 7 days before moving from areas that are either known to be, or may be, infested with the species.

ACTION PLAN: Giant sensitive plant (*Mimosa diplotricha*)

Details

Description: A shrubby or sprawling annual that has four angled branches with a line of sharp, hooked prickles along the angles. Giant sensitive plant is like the common sensitive weed but grows as a small shrub rather than a ground cover. The seed is very long-lived and may remain viable for up 50 years in some situations.

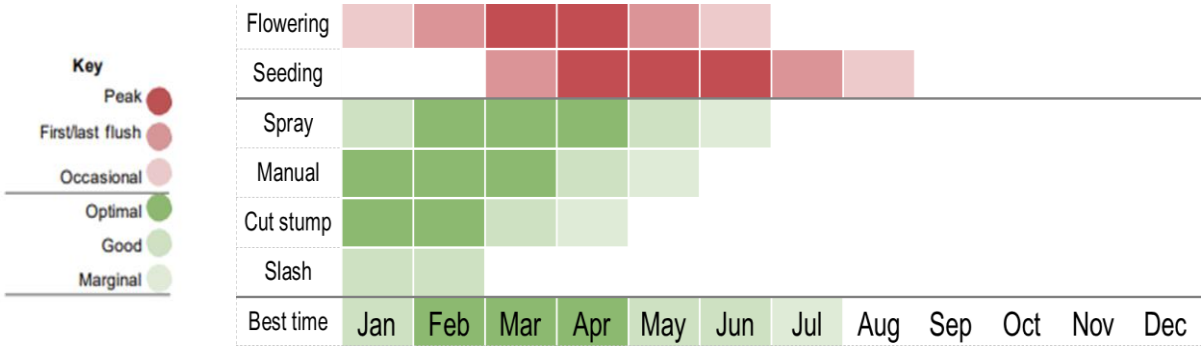
Distribution: Giant sensitive plant is isolated to several small outbreaks on rural properties in Julatten and Kuranda. Outside of Mareeba Shire it occurs in all Wet Tropics coastal catchments but is most common in Hinchinbrook and Cassowary Coast.

Impacts: Giant sensitive plant chokes up cane, pastures and crops causing lost productivity and contaminating produce. It can grow as free – standing shrub or a scrambling climber smothering pasture and native vegetation.

Management calendar

Key projects: All known sites are under monitoring and treatment in the Mareeba Shire area. A successful bio-control agent is present in the Wet Tropics which significantly impacts developing seeds.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Giant sensitive plant (*Mimosa diplotricha*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

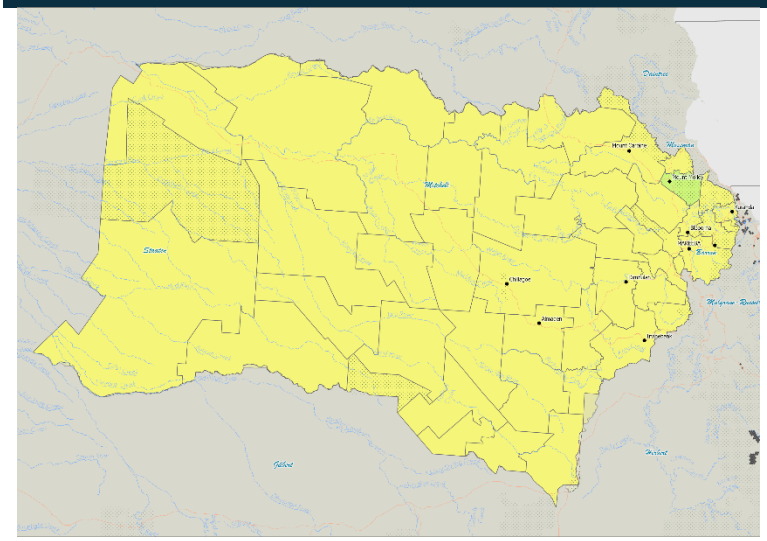
Category 3 – DO NOT DISTRIBUTE

Under the Act giant sensitive plant must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 giant sensitive plant may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba shire Council on 1300 308 461),
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with giant sensitive plant under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Giant sensitive plant can be spread via vehicles, machinery and stock.

Stock should be spelled for 7 days prior to being released to drop any ingested seed.

In the asset protection zone:
Maintaining healthy pasture and ground cover will assist in the management of GSP.

Restricting stock and machinery movement to and from infested areas is essential to reduce spread to new locations.

Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations.

ACTION PLAN: Kosters curse (*Miconia crenata syn. Clidemia hirta*)

Details

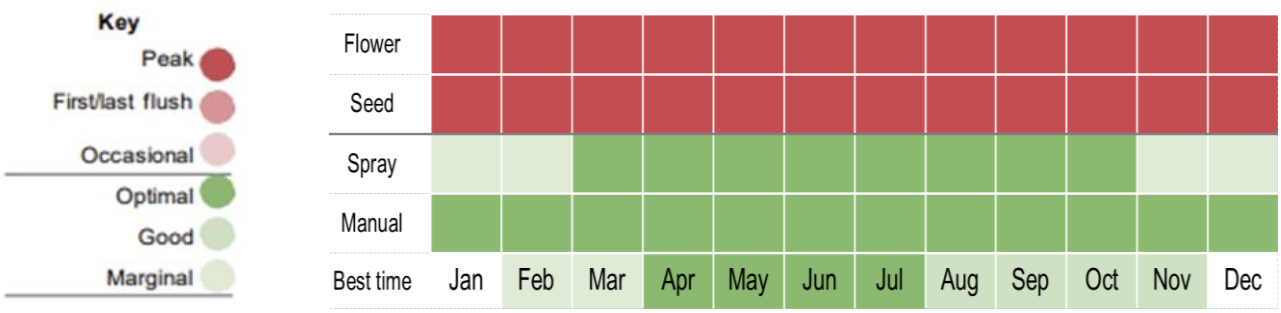
Description: A perennial shrub 0.5 to 2m high. Kosters curse has distinctive opposite leaves with parallel veins with a quilted appearance and covered in short stiff hairs. Small white flowers and deep purple/blue berries covered in short hairs. Can be easily confused with native bluetongue but distinctive leaves and fruit are the key features.

Distribution: The current Australian distribution is restricted to the Julatten area and an isolated outbreak in the Maple Creek area of Wooroonooran National Park.

Impacts: Koster's curse is a serious pest of the environment and agriculture in over 16 countries. It has potential to spread to humid coastal districts of Australia. It smothers native vegetation and pastures by forming dense thickets.

Management calendar

Key projects: Kosters curse is actively targeted during roadside weed management programs. Monitoring and surveillance to assist with containment to known infestations.



Mareeba SHIRE COUNCIL

ACTION PLAN: Kosters curse (*Miconia crenata syn. Clidemia hirta*)

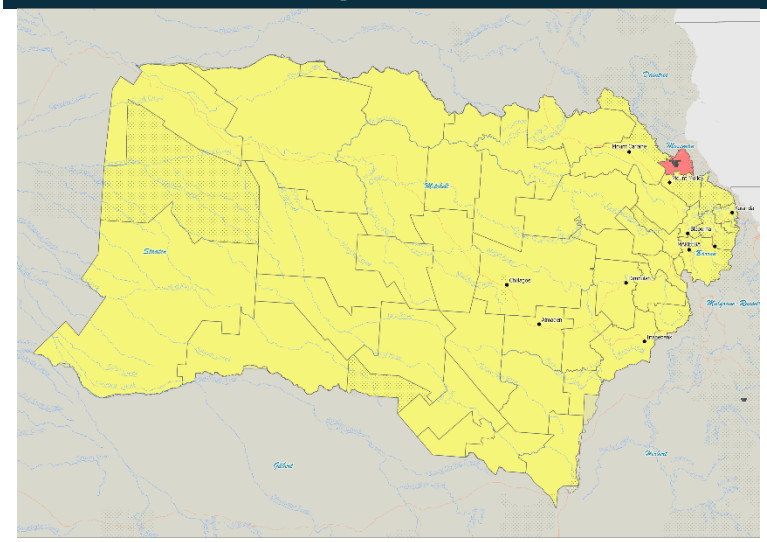
Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

Category 2 – MUST BE REPORTED
Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 5 – DO NOT POSSESS OR KEEP

Under the Act all sightings of Kosters curse must be reported, in addition it must not be kept, moved, given away, sold, or released into the environment. Penalties apply.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Kosters curse under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Ensure that machinery, stock and materials are from weed free areas or subject to a detailed hygiene to reduce the risk of spread. maintaining healthy fire regimes and pastures will improve the ability of your property to rubber vine.

In the asset protection zone:

Control plants along waterways and roadsides from the top-down or in an east-west direction. Assist management programs by assisting with access and maintaining healthy rangelands.

Report new infestations.

ACTION PLAN: Lion's tail (*Leonotis nepetifolia*)

Details

Description: Lion's tail is an erect, sparsely branched annual herb 1-2m tall. It has four angled stems with opposite leaves and compound orange flowers. Spherical seed pods are held long into the dry season.

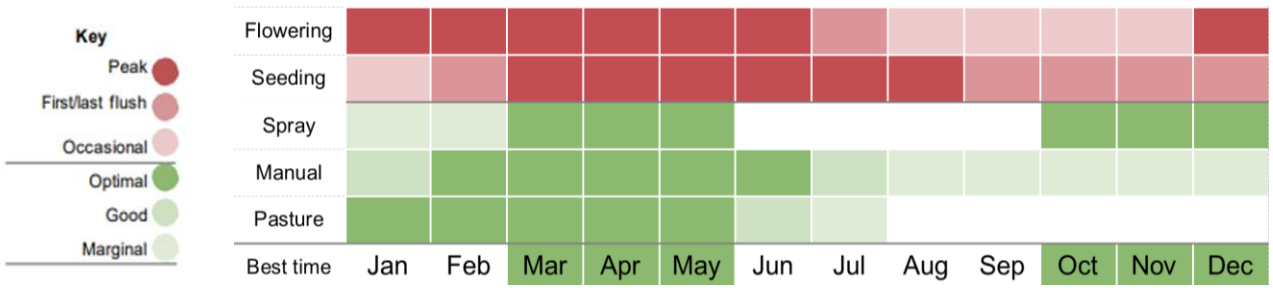
Distribution: A single localised infestation occurs in the Wrotham Park district. Most outbreaks of lion's tail are associated with gardens, particularly around older or historical settlements.

Impacts: A weed of environment and production Lions tail can outcompete native grasses and pastures. It will also grow in riparian zones, riverbanks and flood outs. In the tropical savannah. Lions tail prefers disturbed soils. It is a heavy seed producer and once established it can continue to outcompete native and improved pastures.

Management calendar

Key projects: An ongoing management program is removing a single outbreak scattered over a 3km square area.

Control Spread



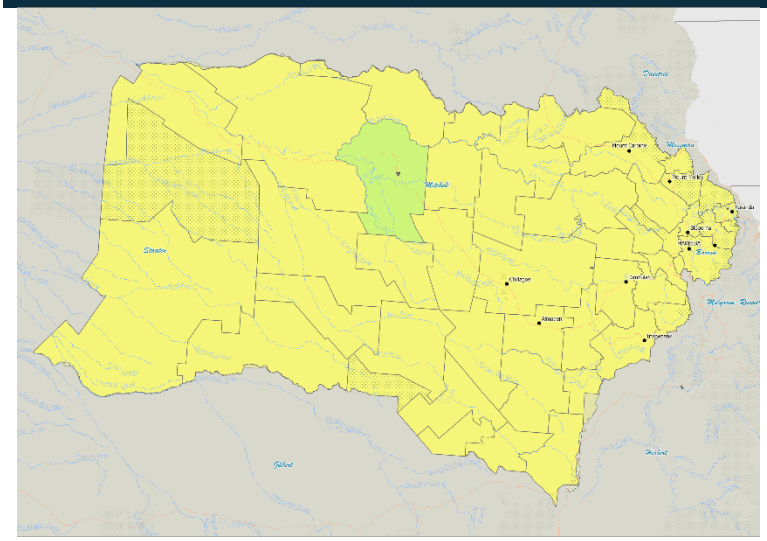
Mareeba SHIRE COUNCIL

ACTION PLAN: Lion's tail (*Leonotis nepetifolia*)

Biosecurity requirements and legal obligations

Lion's tail is not regulated under the Biosecurity Act 2014 or Local laws

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with lion's tail under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

Seek advice prior to works in vicinity of known locations.

Do not move soil and seek advice prior to works in vicinity of known locations. Do not move or accept plant material or soil unless you are sure it is from a clean source.

In the eradication zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

Maintaining healthy pasture and ground cover will assist in the management of lions-tail. Restricting stock movement to and from infested areas is essential to recue spread to new locations.

Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations.

ACTION PLAN: Miconia (*M. calvescens & M. racemosa*)

Details

Description: Miconia is a small tree (up to 15 m) with very large leaves up to 70 cm long. The underside of the leaves is a distinct, deep iridescent purple. It produces clusters of small white flowers followed by red/purple berries. *M. racemosa* is a shrub to 3 m which has leaves with prominent veins and a 'quilted' texture on top. It produces small white or pink flowers on panicles followed by small purple/black berries.

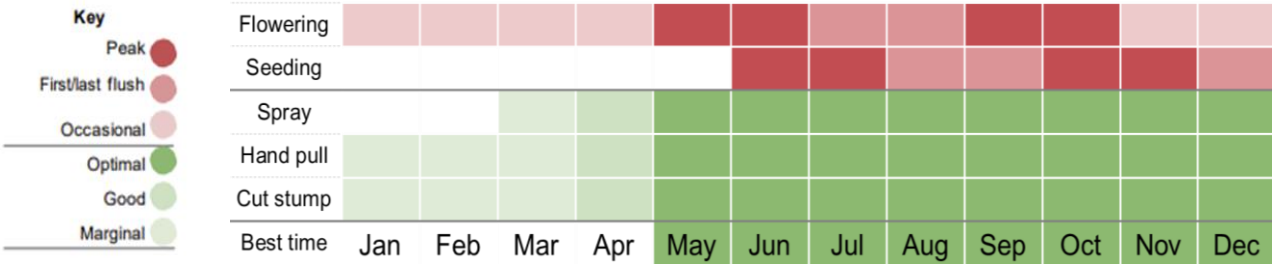
Distribution: Current incursions of *Miconia calvescens* occur in the rainforest areas of Kuranda and Julatten. A single location of *Miconia racemosa* occurs in the Myola/Fairyland area and is also a target of the National cost-shared eradication program.

Impacts: Miconia produces hundreds of small berries every year which are attractive to birds and are spread long distances. It forms dense thickets in rainforest understoreys, potentially replacing native plants and affecting wildlife.

Management calendar

Key projects: A National eradication program is underway on all known infestations. Bi-annual surveys are conducted to monitor all known infestations and to ensure no fruiting plants have gone undetected.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Miconia (*M. calvescens & M. racemosa*)

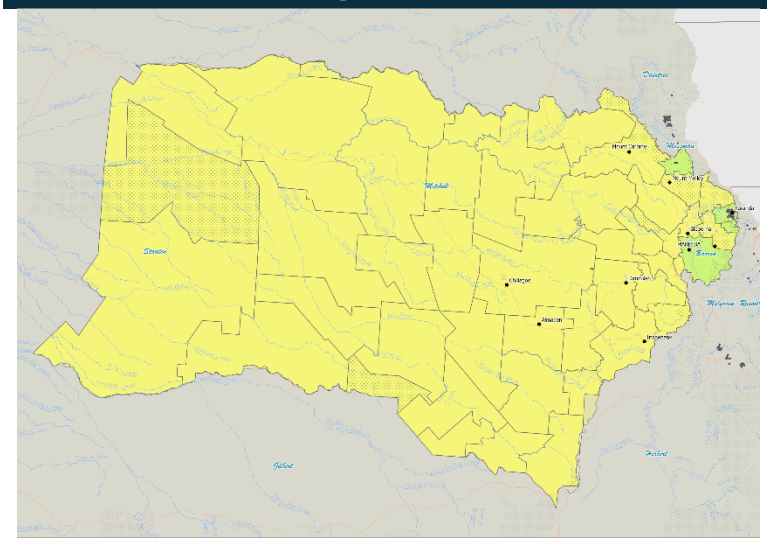
Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

Category 2 – MUST BE REPORTED
Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 5 – DO NOT POSSESS OR KEEP

Under the Act all sightings of Miconia must be reported, in addition it must not be kept, moved, given away, sold, or released into the environment. Penalties apply.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Miconia under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
All persons are required to report plants they think may be Miconia within 24 hours to Biosecurity Queensland on 13 25 23.

In the eradication zone:
All persons are required to report plants they think may be Miconia within 24 hours to Biosecurity Queensland on 13 25 23.

If you have a known infestation on your property, you can assist the survey and control team by maintaining property access points and tracks.

Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible, until Biosecurity Queensland are consulted on 13 25 23

You are responsible to ensure materials or products leaving your property are free from Miconia seed or plant material if your property has a known infestation location.

You are responsible for ensuring machinery and vehicles avoid known infestation areas *or* undertake appropriate wash down procedures prior to leaving site.

ACTION PLAN: Hymenachne (*H. amplexicaulis* & hybrids)

Details

Description: A robust, upright perennial aquatic grass 1-2 metres with distinctive stem clasping leaves. Flowers and seeds are held on dense spikes at ends of stems. Stems are pithy inside and are able to float. An aquatic grass which develops roots at each node. The native hymenachne (*H. acutigluma*) is slenderer, has reddish nodes, leaves that do not clasp around the stem and are held more upright.

Distribution: Widespread in the catchments of the Barron, Rifle, Devil-Devil, upper Walsh and Lake Mitchell. The Lake Mitchell infestation is possibly the largest single infestation in Queensland. There is an isolated infestation in Mary Farms.

Impacts: Hymenachne blocks drainage systems in farms. It readily invades and outcompetes native plants in wetlands and waterways. Inhibits fish passage and breeding opportunities for key species like barramundi. Hymenachne can also impede boat access and potentially damage infrastructure like bridges and weirs.

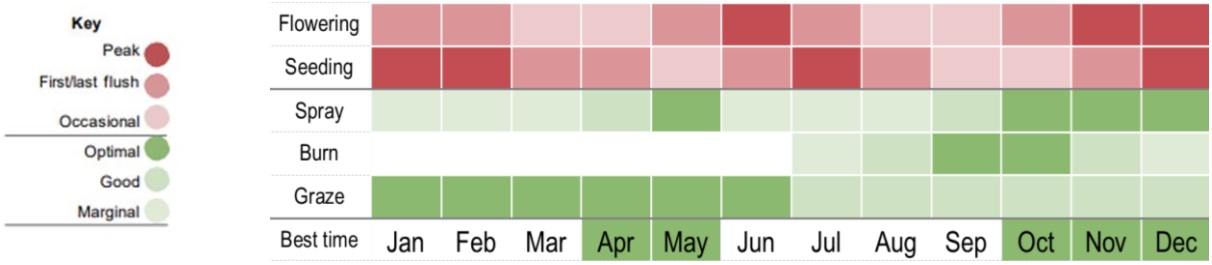
Figure 1 L-r H. amplexicaulis, H. x calimitosa, H. acutigluma.

Management calendar

Key projects: Management in the Barron River, Devil Devil Creek and Granite Creek is targeted toward protecting key assets, reducing spread to new areas and reducing impacts.

A hybrid *H. x calimitosa* between *H. amplexicaulis* and *H. acutigluma* occurs in Abattoir Swamp and is treated the same as Olive hymenachne under the regulation.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Hymenachne (*H. amplexicaulis* & hybrids)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

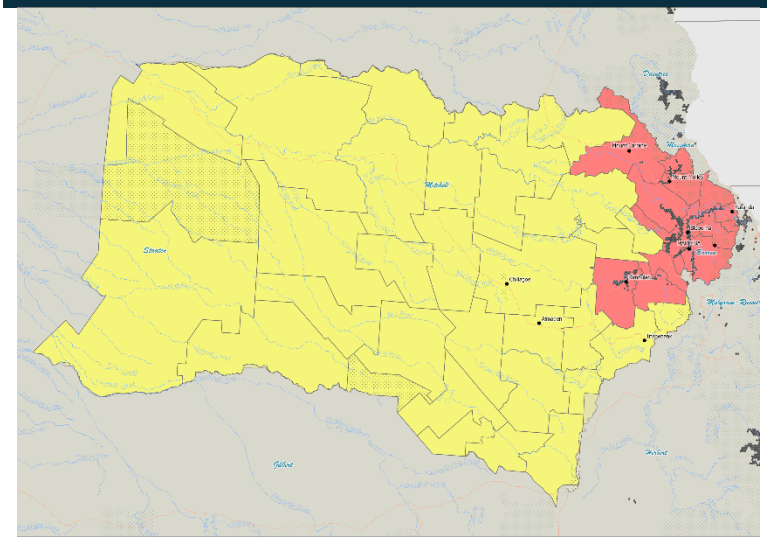
Category 3 – DO NOT DISTRIBUTE

Under the Act olive hymenachne and hybrids must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 hymenachne and hybrids may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with hymenachne under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Olive hymenachne seed can be spread via vehicles, machinery and stock. Waterways and dams should be monitored in the growing season to detect any new outbreaks.

Stock should be spelled for 7 days prior to being released to drop any ingested seed.

In the asset protection zone:
Ensure best practice weed hygiene measures are in place to reduce spread from known infestations.

Maintain weed free areas. Identify high value assets and protect them from impacts where possible.

Clean all watercraft prior to moving between regions, particularly lowland rivers of the Wet Tropics where Olive Hymenachne can be abundant

ACTION PLAN: Parkinsonia (*Parkinsonia aculeata*)

Details

Description: A small smooth-barked shrub or small tree to 10m with distinctive zig-zag branches with sharp spines. Parkinsonia has small oblong-shaped leaflets on 20-40cm long leaf branches held on a short spine tipped stalk. Yellow flowers are followed by pencil shaped seed pods containing small hard seeds which can spread on flood water.

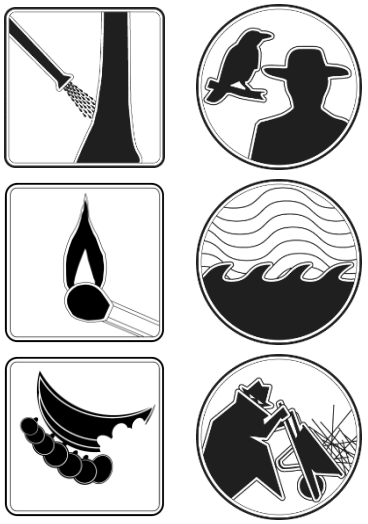
Distribution: Parkinsonia has established in scattered locations in the gulf watersheds on Walsh Creek and Walsh River near Chillagoe and near the Junction of the Lynd and Mitchell Rivers.

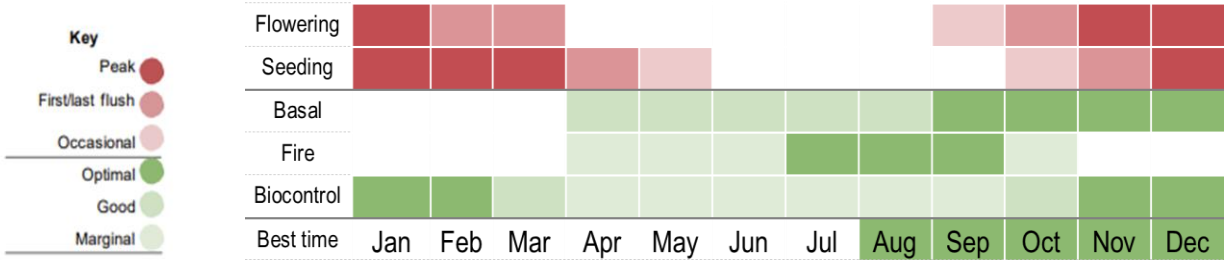
Impacts: Parkinsonia forms dense thorny thickets on the more fertile soils along water courses, river flats, wetland margins and floodplains. It outcompetes native species and rangelands pastures and restricts access to water ways.

Management calendar

Key projects: Delimitation beyond known sites is required to establish full extent. Healthy rangeland pastures and appropriate fire regimes are key tools in broad acre management.

Control Spread





Mareeba SHIRE COUNCIL

ACTION PLAN: Parkinsonia (*Parkinsonia aculeata*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

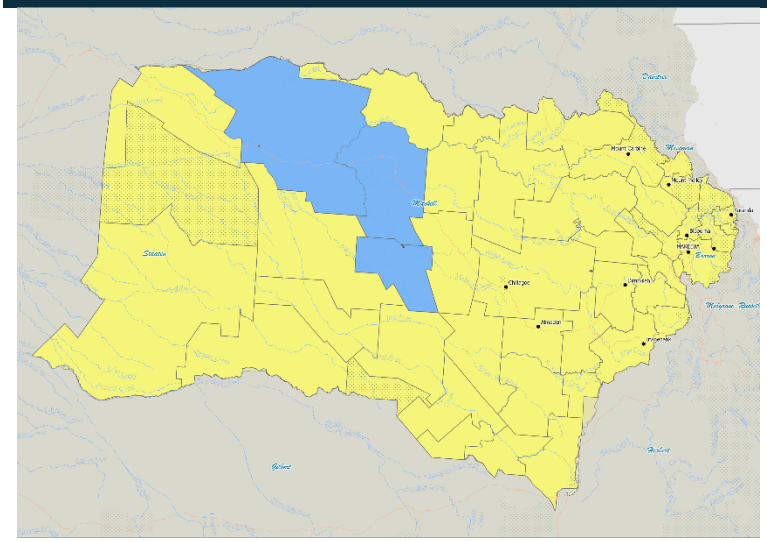
Category 3 – DO NOT DISTRIBUTE

Under the Act Parkinsonia must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 Parkinsonia may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Parkinsonia under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

Ensure that machinery, stock and materials are from weed free areas or subject to a detailed hygiene to reduce the risk of spread. maintaining healthy fire regimes and pastures will improve the ability of your property to Parkinsonia.

Be on the lookout after flood events or stock movements for seedlings.

In the containment zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

Ensure that machinery, stock and materials are from weed free areas or subject to a detailed hygiene to reduce the risk of spread. maintaining healthy fire regimes and pastures will improve the ability of your property to Parkinsonia.
Be on the lookout after flood events or stock movements for seedlings.
Spelling stock for at least 7 days prior to introduction or moving of stock can reduce the risk of spread of seeds on fur or in the gut.

ACTION PLAN: Parthenium (*Parthenium hysterophorus*)

Details

Description: Parthenium weed is an annual herb with a deep tap root and an erect stem that becomes woody with age. As it matures, the plant develops many branches in its top half and may eventually reach a height of two metres.

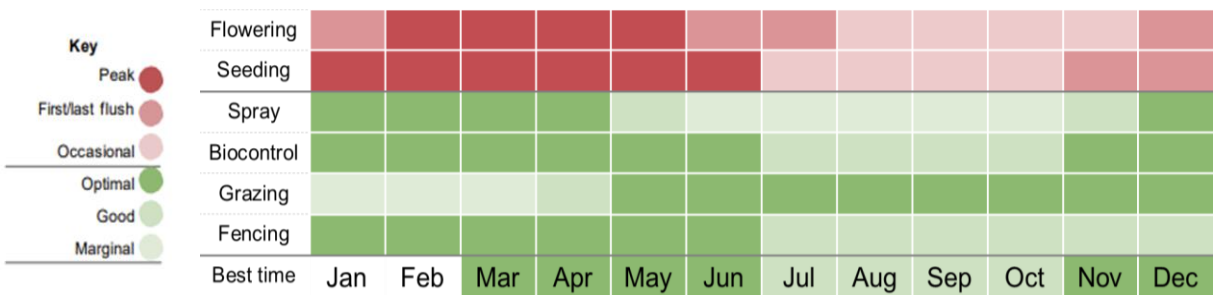
Distribution: Several highly localised infestations occur around Mareeba. Heavier Infestations occur to the south of Mareeba Shire in the Upper Hebert and Burdekin. The introduction of Parthenium is often associated with poultry feed or contaminated machinery from outside of the region.

Impacts: Parthenium is a weed of crops and grasslands causing loss of crop and pasture production. Parthenium weed also causes severe allergic reactions including hay fever and dermatitis in susceptible people. Parthenium is often spread as a contaminant in poultry and stock feed.

Management calendar

Key projects: A Pest Survey Program annual treatment and surveillance program is underway on known infestations. Several biocontrol agents exist for Parthenium weed but low densities of the weed in the Mareeba area means that manual or herbicide control will be more effective at controlling plants before they can set seed.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Parthenium (*Parthenium hysterophorus*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

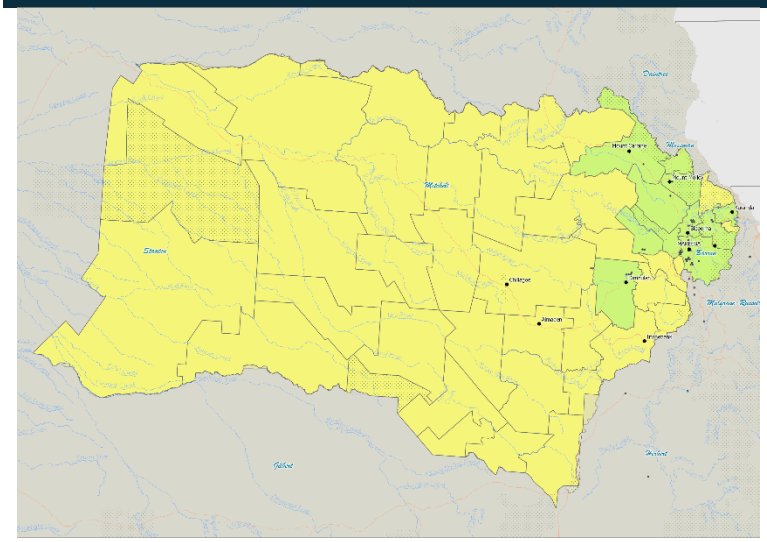
Category 3 – DO NOT DISTRIBUTE

Under the Act Parthenium must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 Parthenium may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Parthenium under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Be aware that contaminated poultry feed or hay may contain seeds and enquire where materials you are purchasing have been sourced from. Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.

In the eradication zone:
Report any suspected outbreaks or detections to Mareeba Shire Council on 1300 308 461.

Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible. Landholders can assist the program by maintaining easy access to treatment areas or by assisting council staff during control and survey activities.

You are responsible for ensuring machinery and vehicles avoid known infestation areas *or* undertake appropriate wash down procedures prior to leaving site. Ensure agricultural and raw materials are sourced from a reliable supplier and are from a weed free area.
Spell any stock in a holding paddock for at least 7 days before moving from known infestation areas.

ACTION PLAN: Rubber vine (*Cryptostegia grandiflora*)

Details

Description: A vigorous twining climber which begins as a multi-stem shrub with long whip like shoots. Can present as low shrubs or a canopy of vines. Distinctive glossy paired leaves and large white to purple funnel shaped flowers. Produces paired rigid seedpods which split to release fine cotton like seed.

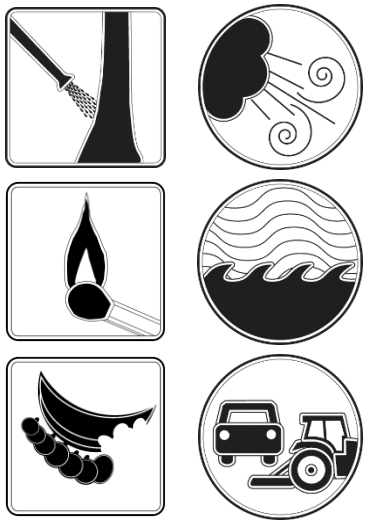
Distribution: Widespread ranging from sparse to common in the savannah and rangelands. More prevalent in areas protected from fire like riparian zones, vine forests and rocky outcrops. The wind-borne seeds are also spread by vehicles along roadsides.

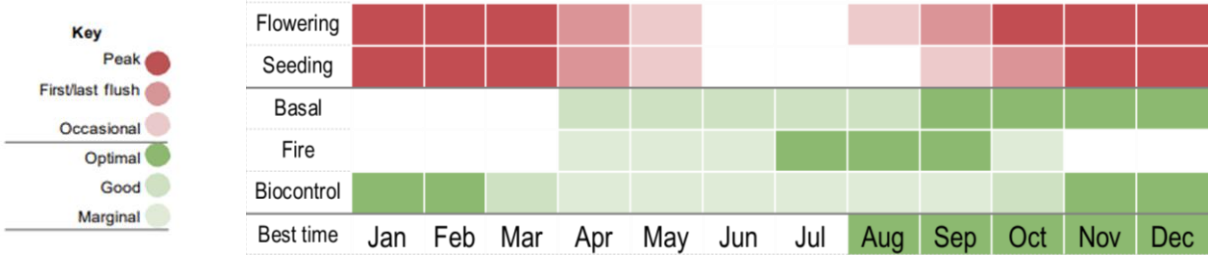
Impacts: Rubber vine smothers native vegetation and pasture and can impede stock movement. The dense vine thickets shade out grasses which alters fire regimes and vegetation composition. It is poisonous to stock. Rubber vine has particularly high impacts in areas sheltered from fire like riverbanks and rocky escarpments.

Management calendar

Key projects: A successful rust bio-control agent seasonally suppresses outbreaks. Healthy rangeland pastures and appropriate fire regimes are key tools in broad acre management. The species is actively targeted during roadside weed management programs.

Control Spread





Mareeba SHIRE COUNCIL

ACTION PLAN: Rubber vine (*Cryptostegia grandiflora*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

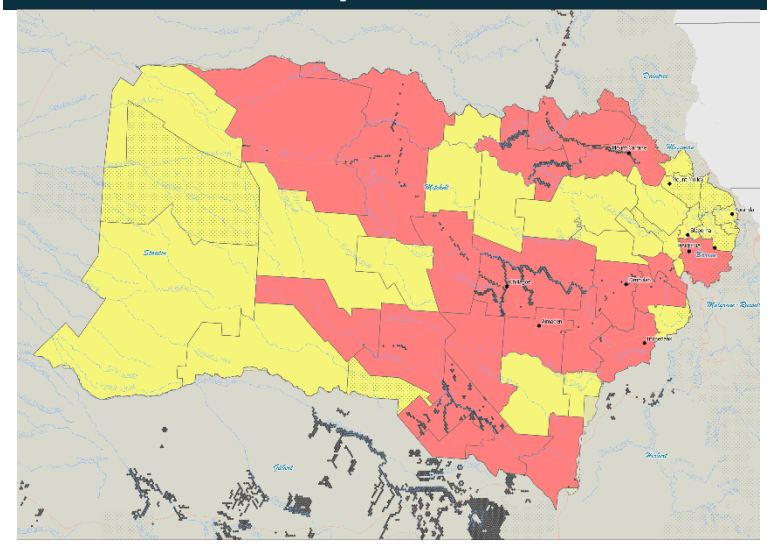
Category 3 – DO NOT DISTRIBUTE

Under the Act rubbervine must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 rubbervine may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with rubbervine under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Ensure that machinery, stock and materials are from weed free areas or subject to a detailed hygiene to reduce the risk of spread. maintaining healthy fire regimes and pastures will improve the ability of your property to rubber vine.

In the asset protection zone:

Control plants along waterways and roadsides from the top-down or in an east-west direction. Assist management programs by assisting with access and maintaining healthy rangelands.

Report new infestations.

ACTION PLAN: Salvinia, water lettuce and water hyacinth.

Details

Description: These floating aquatic weeds are often found together. Salvinia (*Salvinia molesta*) is a floating fern with small, coarsely hairy oval leaves which repel water. As the plant matures it turns from bright green to brown and bunches up into tight rafts. Water lettuce (*Pistia stratiotes*) resembles an open head of lettuce. The leaves are spongy, light green and repel water. Water hyacinth (*Eichhorina crassipes*) has glossy, spoon shaped leaves held upright on swollen stems. It produces distinctive purple/lilac flowers.

Distribution: Salvinia, water hyacinth and water lettuce are common aquatic weeds in several Wet Tropics basins and re-introduction sources may include watercraft, aquariums or gardens.

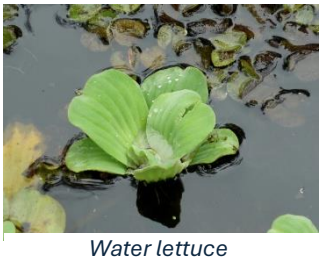
Impacts: These floating aquatic weeds float on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange impacting on fish and aquatic organisms.

Management calendar

Key projects: Periodic release of a weevil biocontrol can reduce coverage of salvinia in the warmer seasons. Spraying of dense infestations of all three species are conducted in key locations including Mareeba Bicentennial Lakes, dams, water supplies and intakes as required.

Control Spread

Salvinia



Water lettuce

Water hyacinth

ACTION PLAN: Salvinia, water lettuce and water hyacinth.

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

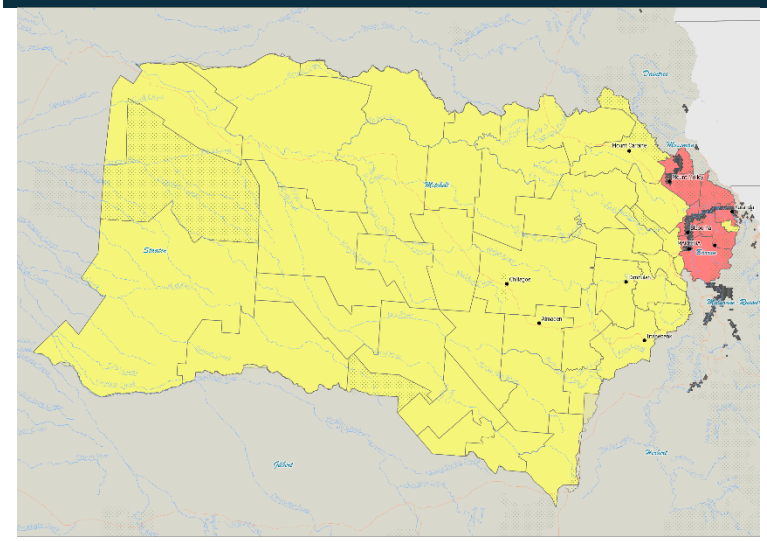
Category 3 – DO NOT DISTRIBUTE

Under the Act Salvina, water lettuce and water hyacinth must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 Salvina, water lettuce and water hyacinth may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Salvina, water lettuce and water hyacinth under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council to report any suspect plants on 1300 308 461.

You are responsible to know what you are buying online or at local markets to ensure you don't unintentionally introduce salvinia, water hyacinth and water lettuce from a contaminated source.
Be responsible and do not dump garden pond or fish tank contents into waterways.

In the asset protection zone:

If you have salvinia, water hyacinth or water lettuce in your possession do not share contaminated material including aquatic plants and do not dump garden pond or fish tank contents into waterways.

Remove and bag specimens from water features and dispose of accordance with the regulation. Contact Mareeba Shire Council on 1300 308 461 for advice on safe disposal.

You are responsible to know what you are selling online or at local markets to ensure you don't unintentionally spread salvinia, water hyacinth or water lettuce.

ACTION PLAN: Siam weed (*Chromolaena odorata*)

Details

Description: A scrambling woody shrub to 3 metres (sometimes higher as a scrambling climber) with distinctive forked leaf venation and purple flush on new leaves. Siam produces clusters of mauve-white flowers in May-June and October.

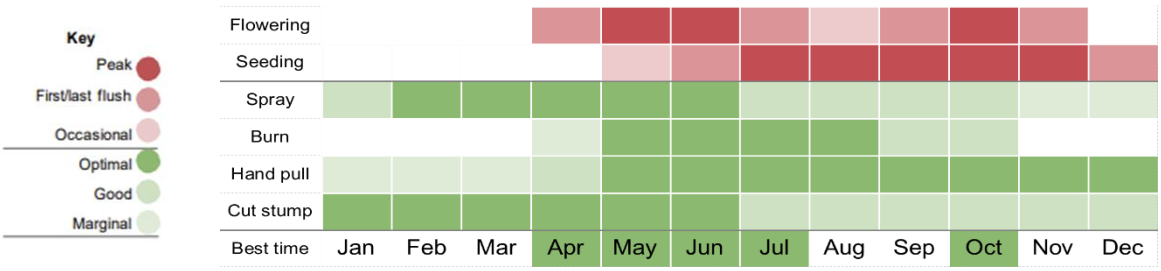
Distribution: Currently known from Emu Creek, Mt Carbine and along sections of the Barron River. Siam weed is widespread but localised in the Upper Herbert from Ravenshoe to Blencoe and in Mossman, Tully/Murray and Lower Johnstone catchments.

Impacts: Siam weed can form dense thickets and outcompete native species and pasture in both disturbed and undisturbed sites. Siam prefers richer soils in alluvial and riparian zones but will grow in almost any environment in the wet or dry tropics.

Management calendar

Key projects: Detailed survey and surveillance is required to ensure Siam has not established in the western catchments of the region. Siam weed is a management target for the Mareeba Shire and surveillance operations are in place to maintain the current level of control and limit spread.

Control Spread



Mareeba SHIRE COUNCIL

ACTION PLAN: Siam weed (*Chromolaena odorata*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

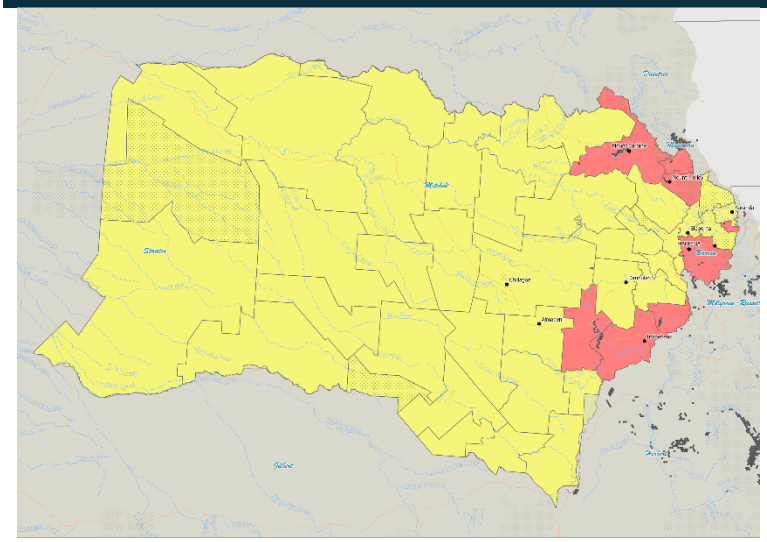
Category 3 – DO NOT DISTRIBUTE

Under the Act Siam weed must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 Siam weed may be disposed of by:

- Deep burial,
- Transporting to a waste facility securely. Contact Mareeba Shire Council on 1300 308 461.
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Siam weed under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
To prevent spread to new locations or introduction from known infestations ensure machinery, vehicles and raw materials are free from soil which may contain seed.

Report any suspect plants to Mareeba Shire Council on 1300 308 461.

In the asset protection zone:
Undertake control works on known infestations in April prior to peak flowering period in May-June. Follow up control works during May-June to ensure any missed plants are controlled before they can produce seed.

Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible.
You are responsible for ensuring machinery and vehicles avoid known infestation areas or are appropriately washed down prior to leaving your property.

You are responsible to ensure materials or products leaving your property are free from Siam weed seed or plant material

ACTION PLAN: Sicklepod (*Senna obtusifolia*)

Details

Description: Sicklepod is a vigorously growing woody shrub growing to 1.5-2m tall and 1m wide with bright green leaves, yellow flowers and long curved seed pods. Normally an annual though plants that have been slashed or survive chemical application often re-shoot and survive another year.

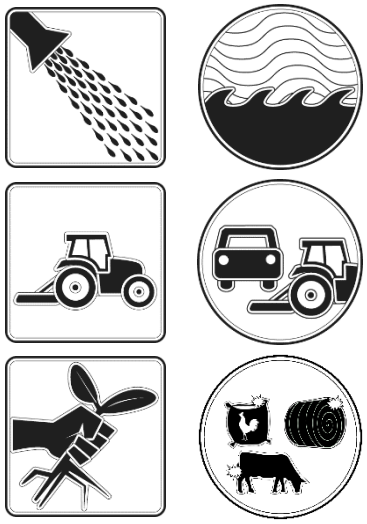
Distribution: Sicklepod is increasing in distribution in Mareeba Shire due to spread on roadsides and rivers. It occurs in scattered locations in the eastern catchments and is moving from the Burke Development Road and waterways in the central west.

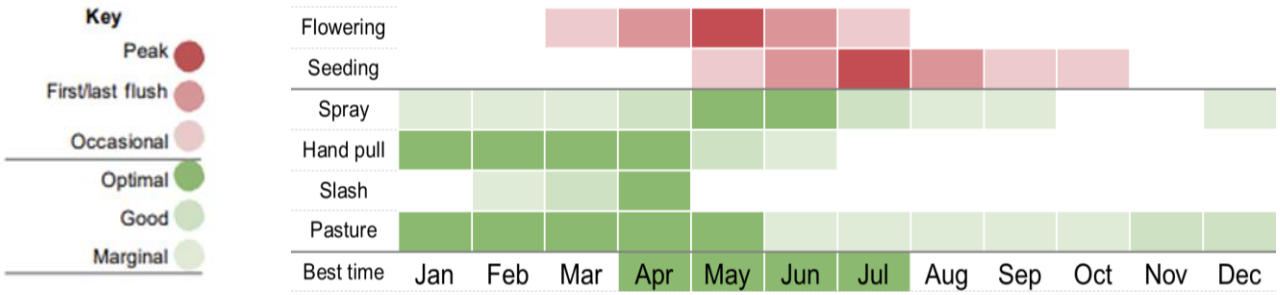
Impacts: Sicklepod can invade and completely dominate pastures, grasslands, riverbeds and wetland margins. It becomes a major weed of crops within 2 or 3 seasons. Sicklepod will invade natural areas especially following disturbance. It is a problem weed of roadsides

Management calendar

Key projects: Asset protection and spread prevention programs are underway. Weed hygiene measures are in place to protect clean areas and properties. The species is actively targeted during roadside weed management programs.

Control Spread





Mareeba SHIRE COUNCIL

ACTION PLAN: Sicklepod (*Senna obtusifolia*)

Biosecurity requirements and legal obligations

Regulated Biosecurity Matter

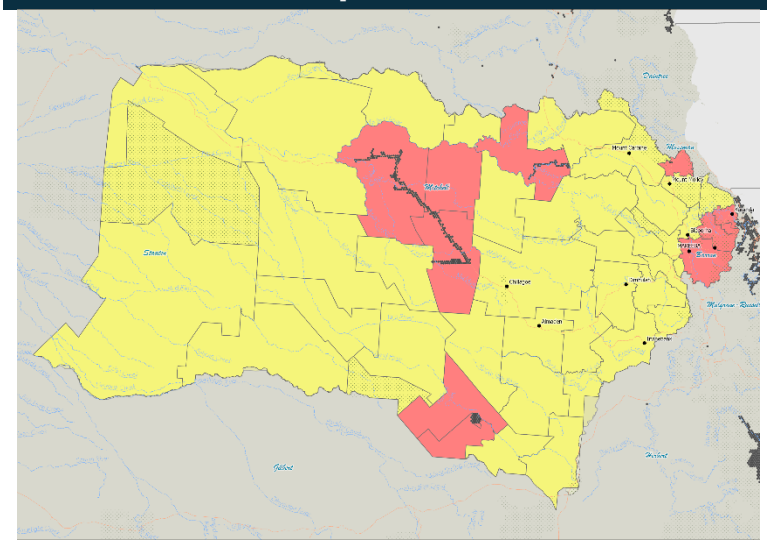
Category 3 – DO NOT DISTRIBUTE

Under the Act sicklepod must not be given away, sold, or released into the environment. Penalties apply.

Under the Biosecurity Regulation 2016 sicklepod may be disposed of by:

- Deep burial,
- Transporting securely to a waste facility. Contact Mareeba Shire Council on 1300 308 461,
- Sealing the matter in plastic and leaving the matter in the sun until any vegetative material being disposed has decomposed.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with sicklepod under their control.

Prevention
Eradication
Containment
Asset Protection

In the prevention zone:
Contact Mareeba Shire Council on 1300 308 461 to report any suspect plants.

Cleaning down machinery and equipment between movements between properties will assist to reduce spread.

Spelling stock in a holding paddock for at least 7 days prior to turnout or movement will ensure any ingested seed is passed before moving.

Ensuring raw materials like quarry products are sourced from a clean site will assist to prevent the introduction of sicklepod

In the asset protection zone:
Spot spraying isolated outbreaks as they occur and prior to slashing or grazing will assist to prevent development and spread of seed. Slashing prior to flowering may prevent seed formation in some situations.

Careful follow up after disturbance such as movement of soil, fire or heavy grazing will limit the establishment of dense infestations.

ACTION PLAN: Wild dog (*Canis lupus familiaris, Canis lupus dingo*)

Details

Description: Wild dogs include wild domestic dogs and hybrids.

Distribution: Wild dogs occur across all parts of the region but are generally more visible in the savannah.

Impacts: Wild dogs can cause stock losses in calving season. They also often carry parasites and pathogens. Near towns they can cause nuisance and impact on domestic animals. Wild dogs are generally not aggressive to people however they may display threatening behaviour in urban areas such as attacking domestic dogs, scavenging or stalking.

Management calendar

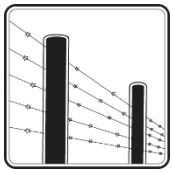
Key projects:

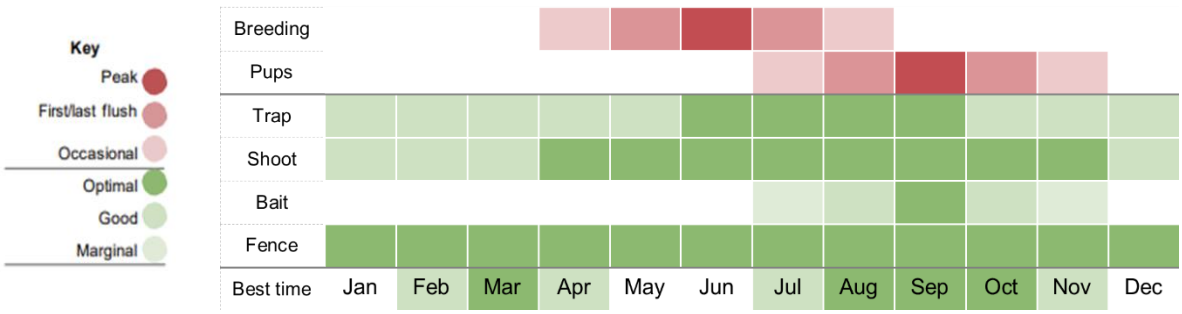
In urban and settled areas Mareeba Shire Council will respond to individual issues as they arise on a case-by-case basis.

Under the *Nature Conservation Act 1992*, the dingo is protected within protected areas (e.g. national parks). Protected areas have their own management principles, which help to conserve their natural resources and natural condition; however, the Department of Environment, Science and Innovation's good neighbour policy allows for the management of wild dogs in protected areas in certain circumstances.

Control

Spread





ACTION PLAN: Wild dog (*Canis lupus familiaris, Canis lupus dingo*)

Biosecurity requirements and legal obligations

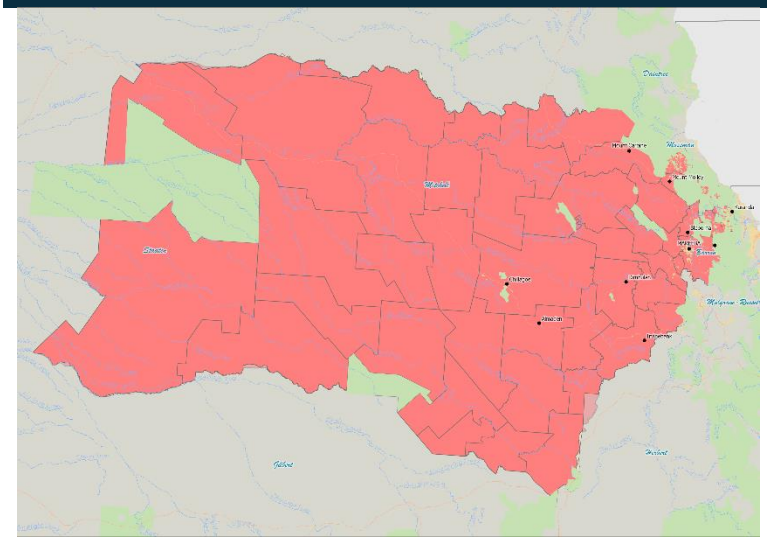
Regulated Biosecurity Matter

Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 5 – DO NOT KEEP
Category 6 – DO NOT FEED

Under the Act you must not move, keep, feed, give away, sell or release wild dogs into the environment. Penalties apply.

The biosecurity plan does not include management of straying or problematic domestic dogs (including hunting dogs). These animals are domestic animals and are managed in accordance with Mareeba Shire Councils Local Laws. For domestic dog queries contact Mareeba Shire Council on 1300 308 461.

Reasonable and practical measures



General Biosecurity Obligation
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with wild dogs under their control.

Nature Conservation Act Applies

Prevention
Eradication
Containment
Asset Protection

In the asset protection zone:
Dog proof fencing is by far the most effective method of reducing the impacts of wild dogs on domestic stock and pets. Fencing also restrains your domestic animals and may assist in preventing other animals such as wallabies or pigs entering your property.

If you have grazing animals, then targeting control activities to reduce wild dog numbers prior to calving is the best way to reduce impacts.

Landholders and property managers should coordinate control activities with neighbours.

Nature Conservation Act applies:
Under the *Nature Conservation Act 1992*, the dingo is protected within protected areas (e.g. national parks). Protected areas have their own management principles, which help to conserve their natural resources and natural condition; however, the Department of Environment, Science and Innovation's good neighbour policy allows for the management of wild dogs in protected areas in certain circumstances.