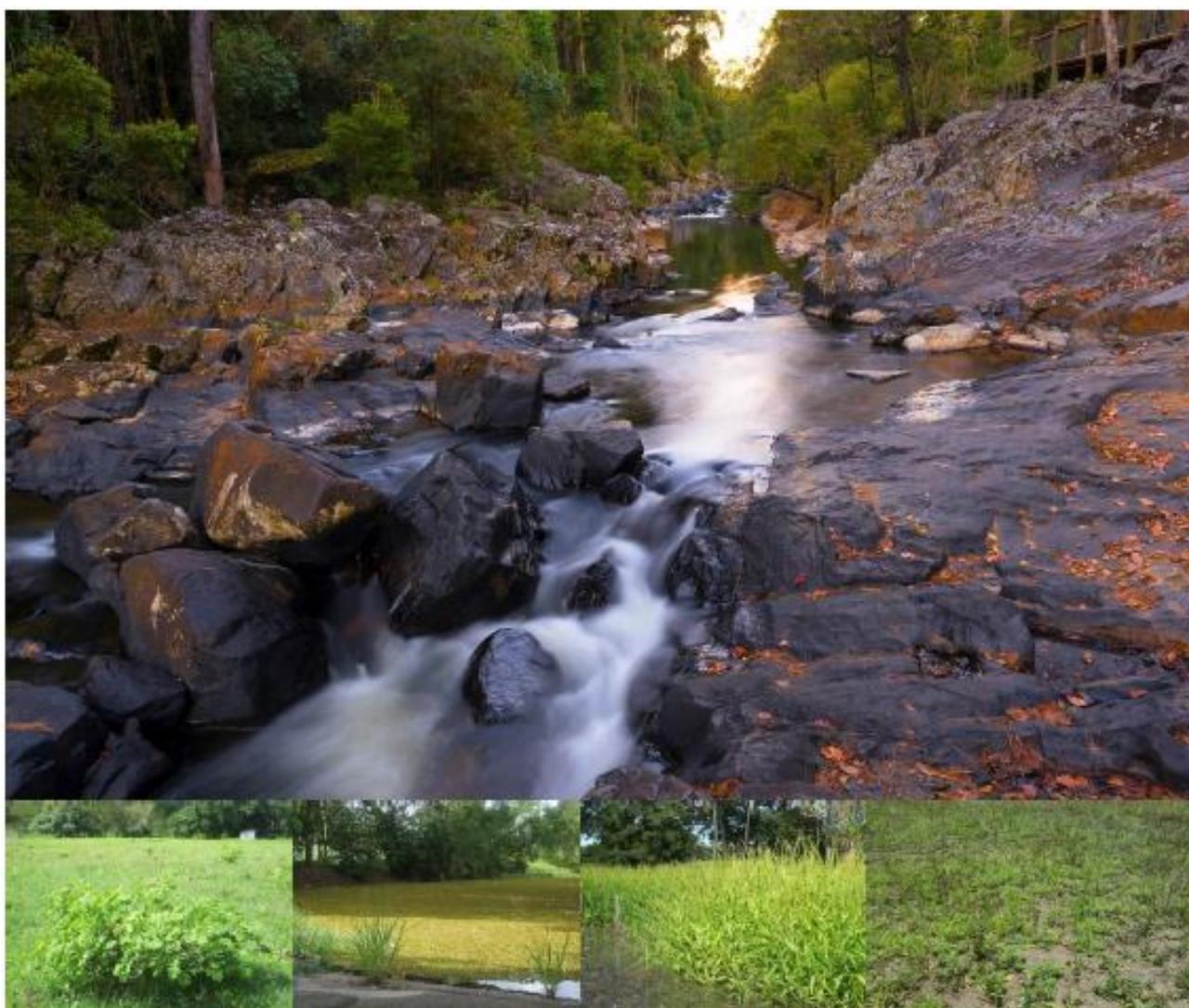


Mackay Regional Council
Biosecurity Plan: 2022 - 2026



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Updated June 2022

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Executive Summary

The aim of the Mackay Regional Council Biosecurity Plan (2022-2026) is to provide a framework for an effective biosecurity system for the Mackay region. This Biosecurity Plan applies to all land within the jurisdiction of Mackay Regional Council and carefully plans and prioritise resources to ensure that time and money are spent on invasive biosecurity matter where work will be most effective.

The Biosecurity Plan has been written to comply with the *Queensland Biosecurity Act 2014* and will guide landholders and managers to control invasive biosecurity matter for the benefits of the entire community.

Acknowledgement of Stakeholders

The Mackay Regional Council would like to thank the members of Mackay Regional Pest Management Group (MRPMG) and Team members of Mackay Regional Council for contributing to this Biosecurity Plan.

1. Introduction

Weeds and pest animals (invasive biosecurity matter) have significant negative impacts on the environment, the economy (particularly agriculture) and the community, including human health and recreation. The purpose of managing invasive species is to prevent new introductions, limit the negative impacts of current infestations and work towards reducing infestations.

Local government has a legislative responsibility to facilitate the management of invasive biosecurity matter (i.e., weeds and pest animals listed in the legislation) within their local government boundaries. This plan provides clear guidance on the strategic approach that is being taken and what is expected of members of the local community to fulfill their obligations with regard to invasive plants and animals.

The plan:

- lists priority invasive plants and animals
- sets management objectives for these priorities
- identifies actions that can be taken to meet objectives and reduce any associated biosecurity risks
- informs investment into strategic biosecurity management
- details how the plan will be monitored, evaluated, and reviewed

The purpose of Mackay Regional Council's Biosecurity Plan is to have an effective and efficient way to control invasive biosecurity matter while educating landholders in the importance of managing pests on their own properties. The plan also helps Council to prioritise where they should be targeting their resources/species to control. Under the *Queensland Biosecurity Act 2014*, everyone has a general biosecurity obligation to take all reasonable and practical measures to prevent or minimise a biosecurity risk. Mackay Regional Council aims to work collaboratively with not only landholders in the region but also our neighbouring Councils.

The management of the following is not included in this plan as they are generally managed by agencies other than local government, or under different legislation:

- plant and animal diseases, parasites, or viruses
- noxious fish
- some tramp ant species
- marine animals and plants
- nuisance native and domestic animals
- public health pests such as rodents, mosquitoes, and cockroaches, etc.

Although local government plays a role in managing nuisance domestic and native animals, and some public health pests, these species are not included within the scope of the biosecurity plan.

All land and waterways within the boundaries of the local government are included in the scope of this plan.

2. Background

2.1 Mackay Regional Council

Mackay Regional Council area covers 7,622 km² with an estimated population of 132,000.



Fig.1 Mackay Regional Council area.

Mackay Regional Council manages over 2,330 kilometres of roads and road reserves.

We have a diverse range of land types from peri-urban properties to grazing and cane growing properties. Pest Management is an important issue to all landholders – pest plants affect farming and grazing – impacting on the economy, while our main feral animals (pigs and dogs) create a social and economic problem for all.

2.2 Legislation and Policy

The Queensland *Biosecurity Act 2014* is the legislation that guides Mackay Regional Councils Pest Management team. The Act outlines the concept of the general biosecurity obligation (GBO), which is an overarching obligation that requires all stakeholders to take all reasonable and practical measures to prevent or minimise a biosecurity risk. The GBO encourages all relevant parties to take a proactive role in preventing, managing, and addressing biosecurity risks that relate to them.

Reasonable and practical measures may include:-

- following hygiene procedures, such as washing vehicles/machinery, to prevent the spread of an invasive plant
- checking that the plant or animal you are acquiring is not listed in the biosecurity plan
- reporting the presence of eradication targets to the local government pest management officer
- managing invasive plants or animals in accordance with best practice control methods
- getting involved in a pest animal baiting or fencing program.
- For category 3 infestation (see Table 2 in 4.1 Priority Ratings) Land Managers maintain a 10m buffer zone around their boundaries, waterways, and roadways, free from restricted invasive matter.
- For category 2 infestation (see Table 2 in 4.1 Priority Ratings) Land Managers complete necessary treatment/action to eradicate the invasive matter.

The *Biosecurity Act 2014* also introduces prohibited and restricted biosecurity matter.

Prohibited – matter not currently present in Queensland and is prohibited because there are reasonable grounds to believe it could bear significant adverse effects if introduced.

Restricted – matter found in Queensland and may have an adverse effect if restrictions are not imposed.

The following is a list of restricted categories and a brief explanation

2.2.1 Restricted matter categories

Restricted matter can be biosecurity matter like a plant and animal disease, noxious fish, insects, pest animal or weeds that are found in Queensland. Specific actions are required to be undertaken that limit the impact of this matter by reducing, controlling, or containing it. Categories 1 and 2 have specific urgent reporting requirements, whether or not they are in a person's possession:

- **Category 1** – Includes red imported fire ants, electric ants, Asian honeybees, and certain animal diseases, aquatic diseases, and pathogens. Must be reported to an inspector (Department of Agriculture and Fisheries)

Category 1 restricted matter requires immediate containment or eradication to minimise the risk of spread. It must be reported to an inspector within 24 hours of an individual becoming aware of its presence (Section 42).

- **Category 2** – Includes certain noxious fish, weeds, and pest animals such as marbled lungfish, mimosa pigra and red-eared slider turtle. Must be reported to an authorised officer (Local Government Officer)

Category 2 restricted matter includes a range of plant and fish species that pose a significant biosecurity risk and require management. Category 2 restricted matter must be reported to an authorised officer (not necessarily an inspector) within 24 hours of an individual becoming aware of its presence (Section 42).

Categories 3, 4, 5 and 7 relate to the requirements for restricted matter that is in a person's possession:

- **Category 3** – not to be distributed or disposed

Category 3 restricted matter includes all invasive animals and plants where deliberate distribution, or disposal is a key source of spread. It must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is provided for in a regulation or under a permit (Section 43).

- **Category 4** – not to be moved

Category 4 restricted matter includes specific invasive plants and animals that must not be moved to ensure they are not spread into other areas of the State. As with category 3, the intention of this prohibition is to limit its distribution or spread (Section 45(a)).

- **Category 5** – not to be kept

Category 5 restricted matter cannot be possessed or kept under a person's control. This restricted matter category includes invasive species that have a high pest potential and capacity to impact heavily on the environment. There are exemptions for seized items, where the restricted matter is being held for identification purposes or under permit (Section 45 (b)).

- **Category 6** – not to be fed

Category 6 restricted matter cannot be fed unless held under a restricted matter permit or for the purposes of poison baiting. This includes invasive animals and noxious fish which are not owned by a person including feral deer, foxes, rabbits, and wild dogs. The intention of this prohibition is to discourage population growth (Section 45 (c)).

- **Category 7** – must be killed

Category 7 restricted matter must be killed as soon as practicable and disposed of in a way described under a regulation. This is currently intended for the management of noxious fish such as carp, and tilapia (Section 44).

There may be several restriction categories that apply to particular biosecurity matter, for example, the Act lists rabbits as category 3, 4, 5 and 6 restricted matter. This means that rabbits must not be given, distributed, sold, or traded, moved within Queensland, kept by a person or in their control, fed (except during baiting programs) and must not be released into the environment.

3. Bio Security Planning

Mackay Regional Council Plan will be in place from 2022 – 2026 with annual reviews.

3.1 Biosecurity Plans

The Queensland government requirements for local Biosecurity Plans are:

- There is no requirement for department approval of biosecurity plans, but the local government may adopt by resolution.
- There is no requirement to review the plan, but best practise is to review periodically.
- Plans should be developed in consultation with the community.
- Plans should re-enforce that local governments are responsible for ensuring invasive biosecurity matter control within their jurisdiction and in accordance with regional plans.
- Plans will include all areas in the Shire, including State land.
- Plans should prioritise biosecurity matter.
- The Biosecurity Plan should not breach the requirements of other Queensland legislation such as:
 - *Agriculture Chemicals Distribution Control Act 1966*
 - *Vegetation Management Act 1999*
 - *Nature Conservation Act 1992*
 - *Water Act 2000*
 - *Environmental Protection Act 1994*
 - *Transport Infrastructure Act 1994*
 - *Animal Care and Protection Act 2001*
 - *Agricultural and Veterinary Chemicals (Queensland) Act 1994*
 - *Qld Biosecurity Act 2014*
 - *Anti-Discrimination Act 1991*

Elements of the Biosecurity Plan include:

- Assessing risk and prioritising species
- Setting goals and management objectives and developing strategies and activities to achieve goals and objectives

- Identifying responsibilities and building commitment to manage invasive biosecurity matter
- Monitoring and evaluating the effectiveness of the plan
- Informing the local community about the plan

3.2 Pest Management Principles

The following is a list of the pest management principles adopted by Queensland Government. These principles are encouraged to be used by local government as core elements of biosecurity planning to ensure best practise in developing a sound strategy.

- Commitment
- Consultation and Partnership
- Integration
- Prevention and early detection
- Planning
- Improvement (research, monitoring and evaluation)
- Public awareness
- Best practise

3.3 Regional Priorities

The Mackay Regional Pest Management Group (MRPMG) consists of representatives from Whitsunday, Mackay and Isaac regions from local and state government departments, community groups and industry bodies whose core business involves the provision of plant and animal pest management information and expertise within their respective fields.

The MRPMG current Regional Pest Management Strategy 2020-2025.

- The goal of the group is to prioritise and coordinate pest management across the region and ensure that best practice principles are carried out in a consistent, integrated, and efficient manner.

3.4 Roles & Responsibilities

3.4.1 Role of Local Government

The role of local government in relation to the Act includes:

1. An administrative function– enforced through authorised officers.

Pest Management officers authorised under the Act have functions and powers to ensure invasive biosecurity matter found within the local government's area of operation is managed in compliance with the Act.

The local government biosecurity plan and associated operational and compliance plans guide the way local government will do this by providing direction on the priorities for the region and how the local government will encourage and/or enforce compliance.

This is supported through NRM, community and land manager engagement.

2. The actions the local government and its officers must take to meet their general biosecurity obligation.

Like any other person or organisation, local governments and their employees have an obligation to report notifiable incidents, minimise the risks associated with any biosecurity matter they are dealing with, and refer obvious biosecurity risks that do not relate to invasive biosecurity matter on to Biosecurity Queensland inspectors (via the 13 25 23 Business Information Centre number).

3.4.2 Other Stakeholders

Stakeholder	Role and responsibility
Biosecurity Queensland	<ul style="list-style-type: none"> • State research capability • State invasive plant and animal responses • State component of national responses • Awareness, extension and education programs to support State priorities • Technical advice • Legislation, strategies, policy, programs and reporting to support State policy objectives • Facilitation of collaborative management • Compliance to support State responses
Other state agencies	<ul style="list-style-type: none"> • Management of invasive plants and animals on state lands • Assistance with identification of response requirements • Complimentary strategies, policy, programs, reporting • Awareness, extension, and education programs to support agency priorities • Facilitation of collaborative management
Natural resource management (NRM) groups	<ul style="list-style-type: none"> • Facilitation of management for regional priorities • Facilitation of regional and local strategies by contributing to regional planning processes • Community awareness • Technical advice • Incentives • Land manager engagement • Contribution to best practice management
Industry	<ul style="list-style-type: none"> • Application of best management practices to meet their GBO • Good neighbour policy • Industry-level biosecurity planning • Awareness/education of stakeholders • Implementation of quality assurance for commodities
Land managers	<ul style="list-style-type: none"> • Application of best management practices to meet their GBO • Good neighbour policy • Property biosecurity planning

4. Prioritising Species

4.1. Priority Rating

Table 1 Level of Priority

Rating	Level of Priority	Commitment
H	High	Report, eradicate, monitor
M	Medium	Contain, control, reduce, educate, monitor, roadside spraying
L	Low	Protect environmental areas, educate, monitor

The priority rating was assessed on information relating to the following criteria:

- The impact or potential impact of the plant or animal
- The distribution and density of the plant or animal
- The resources available
- The feasibility of applying control

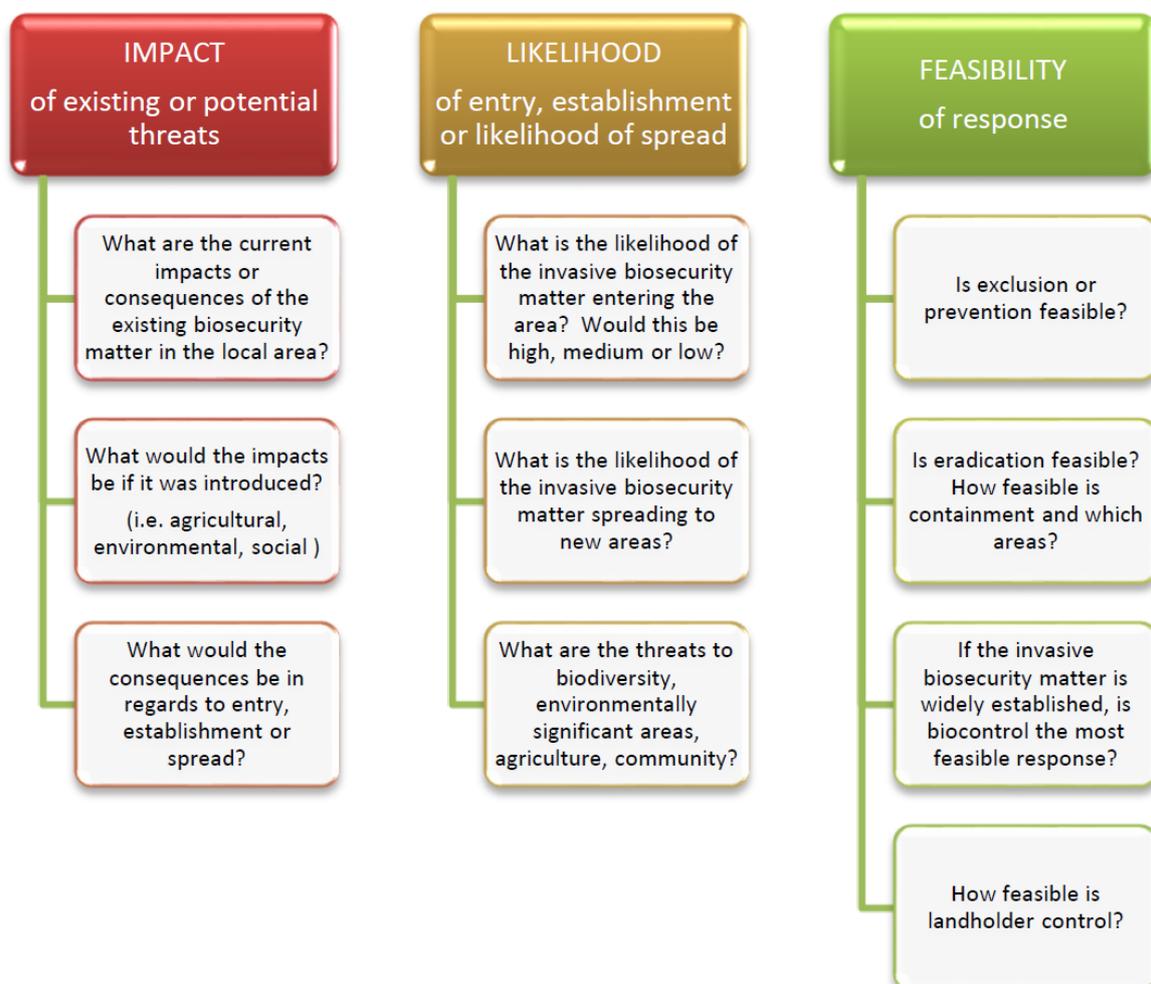


Table 2 Current Status of Infestation

1	Don't have, want to prevent
2	Have, want to eradicate
3	Have, want to contain, control and reduce, educate

4.2. Prohibited Species

Table 4 - To be isolated, reported to DAF immediately.

Invasive Plants	Prohibited	Priority Rating	Current Status of Infestation
Red Witch Weed <i>Striga asiatica</i>	✓	H	2
Prickly Pear - <i>Opuntia puberula</i>		H	2

Red Witch Weed currently under DAF control program.

4.3. Restricted Species

Restricted Invasive Matter	Category No	Priority Rating	Current Status of Infestation
Invasive Plants			
Mimosa Pigra (<i>Mimosa pigra</i>)	2,3,4,5	H	1
Prickly Acacia (<i>Vachellia nilotica</i>)	3	H	1
Pond Apple (<i>Annona glabra</i>)	3	H	2
Giant Sensitive plant (<i>Mimosa diplotricha</i> var. <i>diplotricha</i>)	3	H	3
Parthenium (<i>Parthenium hysterophorus</i>)	3	H	3
Rubber Vine (<i>Cryptostegia grandiflora</i>)	3	H	3
Elephant Ear Vine (<i>Argyreia nervosa</i>)	3	M	2
Bellyache Bush (<i>Jatropha gossypifolia</i> and hybrids)	3	M	2
Harrisia cactus (<i>Harrisia martini</i> , <i>H. tortuosa</i> and <i>H. pomanensis</i> syn. <i>Cereus pomanensis</i>)	3	M	3
Madeira vine (<i>Anredera cordifolia</i>)	3	M	3
Mother of Millions (<i>Bryophyllum delagoense</i>)	3	M	3
Rat Tail Grasses (<i>Sporobolus pyramidalis</i> and <i>S. natalensis</i>)	3	M	3
Singapore Daisy (<i>Sphagneticola trilobata</i> syn. <i>Wedelia trilobata</i>)	3	M	3
Sicklepods (<i>Senna obtusifolia</i>)	3	M	3
Thunbergia (<i>Thunbergia grandiflora</i>)	3	M	3
Tobacco Weed (<i>Elephantopus mollis</i>)	3	M	3
African Tulip tree (<i>Spathodea campanulata</i>)	3	M	3
Asparagus Fern (<i>Asparagus aethiopicus</i> , <i>A. africanus</i> and <i>A. plumosus</i>)	3	L	3
Broad Leaf Pepper Tree (<i>Schinus terebinthifolius</i>)	3	L	3

Restricted Invasive Matter	Category No	Priority Rating	Current Status of Infestation
Cats Claw Creeper (<i>Dolichandra unguis-cati</i>)	3	L	3
Lantana (<i>Lantana camara</i>)	3	L	3
Prickly Pears -			
- bunny ears (<i>Opuntia microdasys</i>)	2,3,4,5	L	3
- common pest pear, spiny pest pear (<i>O. stricta</i> syn. <i>O. inermis</i>)	3	L	3
- drooping tree pear (<i>O.monacantha</i> syn. <i>Ovularis</i>)	3	L	3
- prickly pear (<i>O. elata</i>)	3	L	3
Captain Cook tree – yellow oleander (<i>Cascabela thevetia</i> syn. <i>Thevetia peruviana</i>)	3	L	3
Water Weeds			
Water mimosa (<i>Neptunia oleracea</i> and <i>N.Plena</i>)	2,3,4,5	H	2
<i>Sagittaria</i> (<i>Sagittaria platyphylla</i>)	3	H	2
Hymenachne (<i>Hymenachne amplexicaulis</i> and hybrids)	3	M	3
Salvinia (<i>Salvinia molesta</i>)	3	M	3
Water Hyacinth (<i>Eichhornia crassipes</i>)	3	M	3
Water Lettuce (<i>Pistia stratiotes</i>)	3	M	3
Invasive Animals			
Fox (<i>Vulpes vulpes</i>)	3,4,5,6	H	2
Feral Pig (<i>Sus scrofa</i>)	3,4,6	M	3
Wild Dog (<i>Canis lupus familiaris</i>) other than a domestic dog	3,4,6	M	3
Rabbit (<i>Oryctolagus cuniculus</i>)	3,4,5,6	M	3
Feral Rusa Deer (<i>Cervus timorensis</i>)	3,4,6	L	3
Feral Cat (<i>Felis catus</i> and <i>Prionailurus bengalensis</i> x <i>Felis catus</i>) other than a domestic cat	3,4,6	L	3
Fish			
Tilapia (<i>Oreochromis mossambicus</i> and <i>Tilapia mariae</i>)	3,5,6,7	M	3

4.4 Emerging Weed Issues (NOT RESTRICTED INVASIVE MATTER)

Emerging issues are invasive plants and animals that are considered to be a priority for management within this local government area, based on community and industry priorities. They are not restricted or prohibited matter under the Biosecurity Act. Refer to list below.

Emerging Weed Issues	Category No	Priority Rating	Current Status of Infestation
Navua Sedge (<i>Cyperus aromaticus</i>)		H	2
Itch Grass (<i>Rottboellia cochinchinensis</i>)		M	3
Cocks Comb (<i>Celosia argentia</i>)	Invasive Plant - Emerging issue	M	2
Leucaena (<i>Leucaena leucocephala</i>)		L	3
Cichlid – Oscar & Jaguar		L	3
Indian Myna Birds (<i>Acridotheres tristis</i>)		L	3

5. Biosecurity Management Program

The Queensland Weed and Pest Animal Strategy (DAF, 2016) identified several desired outcomes. The desired outcomes listed in the Strategy need to be reflected in the local government Biosecurity Plans. The desired outcomes are:

- Desired outcome 1: Prevention and early intervention
- Desired outcome 2: Monitoring and assessment
- Desired outcome 3: Awareness and education
- Desired outcome 4: Effective management systems
- Desired outcome 5: Strategic management framework and management
- Desired outcome 6: Commitment, roles, and responsibilities

Desired outcome 1: Prevention and Early detection

Establishment and spread of weeds and pest animals are prevented

Objective A: Management Actions are in place to prevent pest species introduction into MRC LGA.				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	Open and clear communications between Council departments and compliance with prevention protocols	<ul style="list-style-type: none"> • All relevant departments to have weed hygiene procedures • Annual weed talks given to relevant departments and contractors 	Ongoing	MRC individual departments PMO
A.2	Build relationships with neighbouring Councils	<ul style="list-style-type: none"> • Sharing of information regarding priority invasive species • Attendance MRPMG • Collaborating on projects to control restricted invasive matter (plants/animals) 	Ongoing	MRC WRC IRC
A.3	To keep open discussion on construction of wash down facilities in regions	<ul style="list-style-type: none"> • Accessing funding for Mackay area. (IRC has one in Nebo, WRC has 3 mobile washdown facilities) 	Ongoing	TMR MRC WRC IRC
A.4	Regular surveillance program of roads and transport corridors	<ul style="list-style-type: none"> • Surveillance completed. • Early detection of pest species 	Ongoing	MRC (Lead) All stakeholders

A.5	Nurseries regularly monitored to prevent selling, supply or keeping biosecurity matter	<ul style="list-style-type: none"> Monitoring completed twice a year at each nursery 	Ongoing	MRC Biosecurity Qld (DAF)
A.6	Vehicles and sugarcane harvesters are washed down or blown down between farming entities	<ul style="list-style-type: none"> Compliance by contractors, farmers and people accessing properties by washing/blowing down at designated sites prior to moving onto the next property 	Ongoing (aim to increase compliance)	Canegrowers Graziers Contractors MAPS

Objective B: Community have good knowledge of pest species

Action No.	Action Description	Success Indicator	Time Frame	Responsibilities
B.1	Liaise with Landcare, Reef Catchments, and other community groups	<ul style="list-style-type: none"> Number of workshops delivered Number of field days attended Attend local schools Make Pest Fact Sheets available 	Ongoing	MRC
B.2	To establish media content to improve community awareness of biosecurity matter and the risk posed	<ul style="list-style-type: none"> Radio talks Stakeholder newsletters Council Grape Vine 	Ongoing	MRC
B.3	Develop a webpage on MRC website on Biosecurity	<ul style="list-style-type: none"> Webpage developed Links to useful resources 	Developed and maintained ongoing	MRC
B.4.	Pet Stores are regularly visited, distribute information	<ul style="list-style-type: none"> Pest factsheets are being distributed 	Ongoing	MRC

Objective C: MRC to be involved with Regional Eradication Programs

Action No.	Action Description	Success Indicator	Time Frame	Responsibilities
C.1	MRC Pest Management Officers to be available to assist Biosecurity Qld if required, in early detection	<ul style="list-style-type: none"> Invasive species isolated / eradicated 	Ongoing	MRC Biosecurity Qld (DAF)
C.2	MRC Pest Management Officers to work with neighbouring Councils if required	<ul style="list-style-type: none"> Preventing spread of invasive species into MRC region 	Ongoing	MRC IRC WRC DAF

Desired outcome 2: Monitoring and Assessment

Reliable data is needed to ensure that weeds and pest animals are managed holistically and for the long term. Weed and Pest animal control requires an appropriate balance between prevention, surveillance, and preparedness.

Objective A: To undertake developing mapping system				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	To research appropriate system/methods to map plants and animals (State & Local Governments are trying to find/develop a system)	<ul style="list-style-type: none"> Finding and implementing system 	Ongoing	MRC
A.2	Train officers in reporting skills	<ul style="list-style-type: none"> Officers reporting and building good data 	Ongoing	MRC
A.3	Develop statistics on extent of infestations	<ul style="list-style-type: none"> Annual report produced 	Ongoing	MRC

Objective B: Collection of data to make informed pest management decisions				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
B.1	Sharing of data between agencies. Create common system/documents for collection of stakeholder's information (linked to A1)	<ul style="list-style-type: none"> Common system or documents developed Data collated and reported 	Ongoing	MRC All Stakeholders
B.2	Pest Management Activities mapped (baiting, trapping, weed infestations) (linked to A1 for overarching mapping)	<ul style="list-style-type: none"> Creation of map indicating locations 	Ongoing	MRC
B.3	Continues follow up on Eradication Programs of known hotspots for Pond Apple & Rubber Vine	<ul style="list-style-type: none"> Surveillance conducted: Pond Apple – annually (reduction in saplings found) Rubber Vine – twice a year (reduction in vines) 	Ongoing	MRC Landcare
B.4	Survey and treat new weed incursions identified in region	<ul style="list-style-type: none"> Ongoing Surveying Allocated resources to appropriately treat 	Ongoing	MRC

Desired outcome 3: Awareness and Education

Effective management of weeds and pest animals relies on broad stakeholder knowledge of the problem and management issues. Many weeds and pest animal problems are increased through lack of community knowledge and awareness.

Objective A: Maintain communication network with stakeholders				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	Pest Management Officers to represent MRC at MRPMG meetings	<ul style="list-style-type: none"> All meetings attended 	Ongoing	MRC

Objective B: Media coverage				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
B.1	Develop plan to participate in awareness campaign (reference – Health Regulatory Services Communication Plan)	<ul style="list-style-type: none"> Posts on MRC Facebook Radio interviews 	Ongoing	MRC

Objective C: Community accessibility to invasive matter Information				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
C.1	Biosecurity Plan available to public	<ul style="list-style-type: none"> Post on MRC website Printed copies available from MRC 	Ongoing	MRC
C.2	Biosecurity Pest Fact Sheets available	<ul style="list-style-type: none"> Supply of Fact Sheets kept accurate and current 	Ongoing	Biosecurity Qld DAF MRC
C.3	Pest Management Officers to address community groups / attend field days and displays at Local Shows	<ul style="list-style-type: none"> Minimum 10 of events attended 	Ongoing	MRC
C.4	Prompt attention to Customer Requests	<ul style="list-style-type: none"> All issues resolved within given time frames 	Ongoing	MRC

Desired outcome 4: Effective management systems

To ensure the best possible outcomes, all stakeholders should advocate and adopt best practice management for all weeds and pest animal management activities. Weed and pest animal management legislation is backed by suitable enforcement measures, but enforcement should only be used when other approaches have failed.

Objective A: Efficient Reporting System				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	Information gathered is efficiently recorded	<ul style="list-style-type: none"> • True and accurate reports • Continuous updating and improvement of system 	Ongoing	MRC

Objective B: Continued improvement on Best Management Practices (BMP) for pest species				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
B.1	Identify future research required	<ul style="list-style-type: none"> • Partnership with other councils for research project 	Ongoing	MRC WRC IRC MRPMG
B.2	Sharing of BMP updated information from state projects	<ul style="list-style-type: none"> • Information shared in a timely manner 	Ongoing	Biosecurity Qld (DAF)

Objective C: Coordinated Control Programs				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
C.1	Pest Management Officers to liaise with Baiting coordinators	<ul style="list-style-type: none"> • Baiting programs coordinated throughout the region 	Ongoing	Landholders MRC
C.2	Fox Project	<ul style="list-style-type: none"> • Number of dens fumigated • Number of stakeholders participating 	Ongoing	MRC NQBP DBCT Reef Catchments Turtle Watch

C3	Aerial Pig Shoot	<ul style="list-style-type: none"> Number of properties involved Number of pigs shoot 	Ongoing	Landholders MRC Reef Catchments WRC
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Objective D: Community focused programs				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
D.1	Implement effective community-based control programs. (Reduce isolated, one-off responses)	<ul style="list-style-type: none"> Programs coordinated throughout the region Indian Myna Birds 	Ongoing End 2023	Landholders MRC Birdlife Mackay
D.2	To be aware of funding opportunities to undertake pest management activities	<ul style="list-style-type: none"> Number of successful applications 	Ongoing	MRC WRC IRC MRPMG

Desired outcome 5: Strategic training framework and management

A strategic approach can only achieve common goals and priorities if there is effective communication and cooperation between land managers, NRM groups, industry, local governments, and state government departments.

Objective A: Development of Pest Management Strategy that aligns with other Council Strategies				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	To liaise with other departments so that strategies align	<ul style="list-style-type: none"> That departments have same focus 	Ongoing	MRC
A.2	That Biosecurity Plan is reviewed annually to ensure it reflects current issues	<ul style="list-style-type: none"> MRC Biosecurity plan reflects current issues 	Ongoing	MRC

Objective B: Pest Management is effectively resourced				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
B.1	Sufficient resources are allocated to Pest Management operations to achieve desired objectives	<ul style="list-style-type: none"> That strategic actions are not compromised by budget restraints 	Ongoing	All stakeholders

Objective C: Pest management strategies are implemented, evaluated, and reviewed				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
C.1	Pest species are managed on MRC land through Property Management Plans (PMP's)	<ul style="list-style-type: none"> PMP's are developed for pest species located on MRC land 	Ongoing	MRC
C.2	Property Management Plans (PMP's) are developed for stakeholders affected by pest species	<ul style="list-style-type: none"> PMP's developed for affected properties 	Ongoing	All Stakeholders MRC

Desired outcome 6: Commitment, Roles and Responsibilities

Management of weeds and pest animals is the shared responsibility of land managers, industry, the community, and all levels of government. Clearly defined and accepted roles and responsibilities are crucial to the success of long-term management.

Objective A: Long term approach to Pest Management Activities				
<i>Action No.</i>	<i>Action Description</i>	<i>Success Indicator</i>	<i>Time Frame</i>	<i>Responsibilities</i>
A.1	MRC continues to be involved in the MRPMG	<ul style="list-style-type: none"> Pest Management Officers to attend MRPMG meeting and Resource Sharing days 	Ongoing	Pest Management Officers
A.2	Support of knowledge building activities	<ul style="list-style-type: none"> Trainings and Symposiums attended 	Ongoing	Pest Management Officers

6. Implementation and action plan

General approach and strategic direction

The pest management actions of the Mackay Regional Council area will be guided by the following principles:

- 1) The Council will encourage landholders to report prohibited invasive plants and animals to DAF.
- 2) The Council will manage priority pests on its own land using pest management plans.
- 3) The Council will encourage landholders/managers to control restricted invasive matter with the aid of property management plans.
- 4) The Council will develop community education and awareness strategies to assist in educating landholders.
- 5) Council will direct its pest management resources based on the identification of priority control areas.
- 6) The council will control priority pests on Local and Main roads.
- 7) Council will use compliance and enforcement actions in the control of invasive biosecurity matter when education fails.
- 8) The Mackay Regional Council Annual Operation Pest Management Plan (see appendix 1) must be achievable and reflect human and financial resources at the time.

The council and community will need to focus resources on priority pests in priority parts of the region. Priority areas will be assessed on the following attributes:

- 1) Pest priority.
- 2) Risk to environmentally significant areas and location in catchment such as creeks, wetlands etc. Weed infestations in the upper catchment will be prioritised higher than those in the lower landscape.
- 3) Density and total area infestation.
- 4) Capacity of landowner to contain.
- 5) Ease of access.

7. Monitoring and evaluation

The Mackay Regional Council Biosecurity Plan (2022-2026) will be reviewed annually by Council staff. The review of the Biosecurity Plan will involve:

- A review of pest plant and animal species,
- A review of pest priorities
- A review of the annual operating plan

8. Appendix

8.1 Annual Operating Plan 2022/23

- Pest Management Team Leader – 1FTE (Mirani/Mackay) (158 days/yr)
- Pest Management Officer – 1FTE (Sarina) (158 days/yr)
- Pest Management Officer – 1FTE (Mirani/Mackay) (158 days/yr)
- Pest Management Officer – 1FTE (Mirani/Mackay) (158 days/yr)
- Pest Management Officer – 1FTE (Mackay/Sarina) (158 days/yr)
- Number of workdays available = 790 days/yr

Pest Management Program Activities

The following is the proposed list of annual tasks and approximate days allocated to each:

Weed management task	Description	Staff days allocated – target days	% of total time
Weed control council land	Spraying of declared weeds and PMP's on council land and road reserves	118	15
Property pest management plans & enforcement	The development of PMP's with landholders and undertake enforcement action	118	15
Education and awareness	Educating landholders, field days, shed meetings, shows, training sessions	79	10
Data acquisition and management	Investigate mapping system, record data, share data, map weed infestations	40	5
Surveillance program	Surveillance of priority weeds	79	10
Strategic management, training and meetings	Attend training, meetings, write procedures and plans	40	5
Total		474	60%

Pest animal management task	Description	Staff days allocated – target days	% of total time
1080 baiting (ground)	Assist with coordinating and administering 1080 baiting programs	87	11
Aerial baiting	Once a year program delivered in partnership with WRC, QPWS, DNR	8	1
Trap management	Feral animal trap assistance and hire to landholders	40	5
Strychnine baiting	Assist with coordinating and administering strychnine baiting	40	5
Education and awareness	Educating landholders, field days, shed meetings, shows, training sessions	79	10
Strategic management, training and meetings	Attend training, meetings, write procedures and plans	62	8
Total		316	40%

8.2 Abbreviations

MRC - Mackay Regional Council
IRC - Isaac Regional Council
WRC - Whitsunday Regional Council
DAF - Department of Agriculture & Fisheries
MRPMG - Mackay Regional Pest Management Group
QPWS - Queensland Parks & Wildlife Service
DNR – Department of Natural Resource
TMR – Department of Transport & Main Roads

8.3 List of Stakeholders

Mackay Regional Council, Isaac Regional Council, Whitsunday Regional Council, Pioneer Catchment Landcare, Sarina Landcare, Mackay Regional Pest Management Group, Department of Agriculture & Fisheries, Queensland Parks & Wildlife Service, Reef Catchments, Department of Transport & Main Roads, North Queensland Bulk Ports, Mackay Area Productivity Service, Birdlife Mackay, Ergon & Power Link.

8.4 References

Department of Agriculture & Fisheries 2014. Biosecurity Act 2014 Queensland Government, Brisbane.

Department of Agriculture & Fisheries. Queensland Weed & Pest Animal Strategy 2021-2025,

Department of Agriculture & Fisheries 2016. Developing local area biosecurity plans: a guide for local governments. Queensland Government, Brisbane.

Mackay Regional Pest Management Group, 2011. Regional Pest Management Strategy – Isaac, Mackay, Whitsunday (2020-2025). Reef Catchments Inc.

Mackay Regional Councils Pest Management Plan (2017-2021)