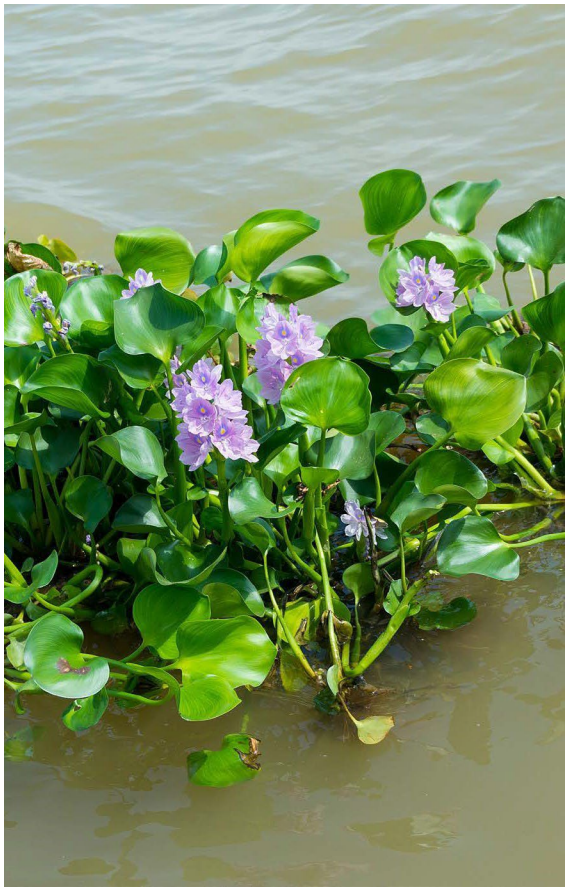
Rockhampton Regional Council

Biosecurity Plan

2022-2026



Acknowledgements

Rockhampton Regional Council acknowledges the traditional custodians of the land which is now known as the Rockhampton Region - the Darumbal People, the Gaangalu Nation People and Barada Kabalbara Yetimarala People - and pay respects to their Elders past, present and emerging.

We also acknowledge the Torres Strait Islander people whose land is in the Torres Strait but who live and work on Aboriginal land.

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At its core, biosecurity is about managing the risks and impacts associated with pests and diseases in our community.

Invasive plants and animals significantly impact our ecosystems, societies, the economy, and public health. The management of these impacts requires strong commitment, cooperation, and collaboration from all stakeholders.

Invasive species have had a hefty economic toll on the country, with CSIRO research estimating that invasive species have cost the Australian economy at least $390 billion in the last 60 years alone.

The 2022-2026 Biosecurity Plan for Pest Management reinforces the basic principles of invasive pest and animal management by delivering Biosecurity programs on a local level while also assisting in state and national initiatives.

The plan sets the direction for the community over the next four years by prioritising activities and guiding all stakeholders in the management of biosecurity for the betterment of the entire local government area.

COUNCILLOR GRANT MATHERS

Planning and Regulation Portfolio
Rockhampton Regional Council

Background

Queensland has many plants and animals that have been introduced, either deliberately or accidentally, many of which are found in the Rockhampton Region. Some species have spread and multiplied to the point where they can cause damage to the environment, the economy and the community and are considered invasive.

The *Biosecurity Act 2014* (the Act) is the governing legislation that regulates invasive species including plants and animals.

Under the Act everyone has an obligation to take all reasonable and practical measures to prevent or minimise a biosecurity risk from invasive plants, animals and other biosecurity matter. This is called the General Biosecurity Obligation.

The management of invasive biosecurity matter (invasive plants and animals) is the shared responsibility of land managers, industry, the community and all levels of government. Whilst the primary responsibility rests with the land manager, collective actions using a nil-tenure approach is best practice, particularly for mobile animal species.

The Act requires Council have a biosecurity plan to address invasive biosecurity matter for its local government area.

The plan addresses the management of invasive biosecurity matter identified by the Act and other species identified as having significant local impacts within the Rockhampton Region.

Rockhampton Region

The Rockhampton Region consists of approximately 657,549 hectares and supports a population of approximately 82 000 people.

Recognised nationally as the beef capital of Australia, beef produced in Rockhampton is exported across the world. A meatworks with the Rockhampton Region services the cattle industry. Another meatworks is located just outside the Rockhampton Region.

In addition to beef, there are a range of emerging agricultural and aquaculture opportunities in the region. There are also a number of cottage industries providing supplementary income including miniature horses and alpacas.

Rockhampton is situated along major north, south and west transport and freight infrastructure routes.

The routes are used by tourists, transport industries and locals.

To the South of Rockhampton is the Port of Rockhampton (formerly known as Port Alma Shipping Terminal), a shipping port that handles cargo.

The Fitzroy Basin in Central Queensland is 142, 665 square kilometres in size, making it the largest river catchment flowing to the eastern coast of Australia. All water that falls in the landscapes within the Fitzroy Basin eventually reaches the Fitzroy River which flows past Rockhampton and into the iconic Great Barrier Reef lagoon.

Invasive aquatic plants currently exist on the river. When conditions suit, they have covered significant areas of water causing environmental, infrastructure and community impacts. Their presence in the river means that during major flood events, weeds could move into bodies of water on the lower Fitzroy Floodplain wetlands (a Directory of Important Wetlands Area) replenishing their supply and flows into the sea.

Impacts

Invasive biosecurity matter has the potential to adversely alter ecosystem function, reduce primary industry productivity and profitability and threaten human and animal health and social amenity.

Environmental impacts

Introduced invasive species place considerable pressure on native biodiversity, either directly or by affecting vegetation structure and/or ecological and physical processes. This can lead to the reduction or extinction of native species.

The negative impacts of invasive animals on biodiversity include:

- Direct predation,
- Loss of food and shelter for native species,
- Degradation of habitats,
- Reduction and possible extinction of native animals,
- Spread of disease,
- Competition for shelter and food,



- Loss of genetic purity (hybridisation).

The negative impacts of invasive biosecurity matter on biodiversity include:

- Ability to drastically out compete native species, transforming ecosystems.
- Degradation of native vegetation,
- Loss of food and shelter for native species,
- Reduction and possible extinction of native species.

Economic impacts

The Rockhampton Region is considered the Beef Capital of Australia and supports a range of agricultural enterprises supplying domestic and international markets.

According to the CSIRO in the last 60 years alone deliberately or accidentally introduced invasive species have cost the Australian economy $389.59 billion, a number that is likely to rise unless better investments, reporting and coordinated interventions are introduced). (CSIRO Media Release July 2021, Flinders University). The impacts of some animals in Queensland are well documented however, the true cost of invasive animals to Queensland's economy is unknown and difficult to quantify. Based on the above report, it is conservatively estimated that invasive animals cost Queensland $215 million a year by preying on livestock, causing crop losses, competing for pasture and spreading disease.

The negative economic impacts of invasive animals include:

- Direct control and management costs,
- Predation of livestock (by wild dogs, foxes and feral pigs),
- Competition for resources,
- Destruction of natural resources through soil disturbance and removal of vegetation,
- Destruction of pastures and crops,
- Toxic to livestock,
- Reduction of nature-based tourism due to destruction of natural resources.

Invasive plants are also a significant problem for agricultural land users. The CRC for Australian Weed Management estimated that impacts of invasive terrestrial weeds on agriculture cost the Australian economy approximately $4 billion per year (Sinden et al. 2004). As Queensland is Australia's second largest state and has the highest proportion of land area in any state dedicated to agriculture, the costs associated with lost production and weed control in Queensland are considerable.

The negative economic impacts of invasive plants include:

- Competition with pastures leading to reduced stocking capacity and erosion,
- Toxicity to stock,
- Competition with crops for water and nutrients,
- Increased stock mustering costs,
- Loss of ecotourism values,
- Impacts (of aquatic weeds) on water quality and irrigation,
- Management costs arising from the use of physical, mechanical and chemical control methods,
- Increased cost of fire preparedness and response due to spread of high biomass grasses,
- Increase in habitat for feral animals.

Social and human health impacts

Invasive biosecurity matter can affect liveability in urban, peri-urban and rural residential areas. They can cause general nuisance and disturbance and reduce the community's enjoyment of natural areas.

The negative impacts of invasive animals on social and human health include:

- Predation of livestock and pets,
- Potential for injury to people,
- Increased risk of motor vehicle accidents,
- Damage to structures,
- Spread of disease.

Wild dogs and foxes prey on family pets and poultry. Feral deer and horses have been implicated in motor vehicle accidents.

Feral animals can carry zoonotic diseases such as hydatids (wild dogs, foxes), Q fever (feral pigs), brucellosis (feral pigs) and leptospirosis (feral pigs, feral deer).

The negative impacts of invasive plants on social and human health include:

- Allergic reactions,
- Increased risks and reduced aesthetic value in recreational areas,



- Increased risk of fire.

Many aquatic invasive plants, such as salvinia, cause safety hazards. Small children have drowned when they thought the floating 'carpet' of salvinia was solid.

Aquatic invasive plants, including water lettuce, salvinia and water hyacinth, interfere with recreational activities undertaken on the Fitzroy River.

Aquatic weeds reduce the aesthetic value of rivers, lakes and streams and impact on water quality which can result in lower animal growth/production.

Invasive Species Pathways

It is recognised that there are many avenues for invasive species to spread (both new species to our region or existing species to a new location within the region) including

- Livestock transport,
- Contaminated fodder,
- Contaminated crop and pasture seeds,
- Contaminated vehicles commercial and recreational (including water vehicles),
- Storm water flows/ waterway flooding,
- People movements,
- Wind.

Rockhampton is a major gateway between the east coast and Western Queensland as the junction of the Bruce Highway and Capricorn Highway. Livestock movements are increased due to the location of a sale yard and meat works within our region.

Rockhampton Regional Council does not have a wash bay to allow for individuals to wash their contaminated vehicles, though all our neighbouring Councils do close to our boundary.

CQLX have a commercially operated used by public for trucks and other standard car washes are available in urban areas of the region.

Challenges to effective pest management

The predominant challenges for managing invasive biosecurity matter in the Rockhampton Region include:

- Cost and effort required to deliver effective long-term control activities,
- Proximity of urban and peri-urban areas to protected areas (National Parks),
- Mobility of pest animals over a number of tenures,
- The distribution of pest species,
- The distribution of individuals across the large, less populated rural areas limits the ability of individuals to control and manage invasive biosecurity matter,
- Concerns over non-target impacts of control methods,
- Difficulties of control in urban and peri-urban areas,
- Changing land use and social demographics,
- Absentee landholders,
- Animal welfare obligations which may limit the use of some control methods,
- Knowledge in urban areas in relation to garden escapees of invasive plants,
- Stakeholder knowledge.

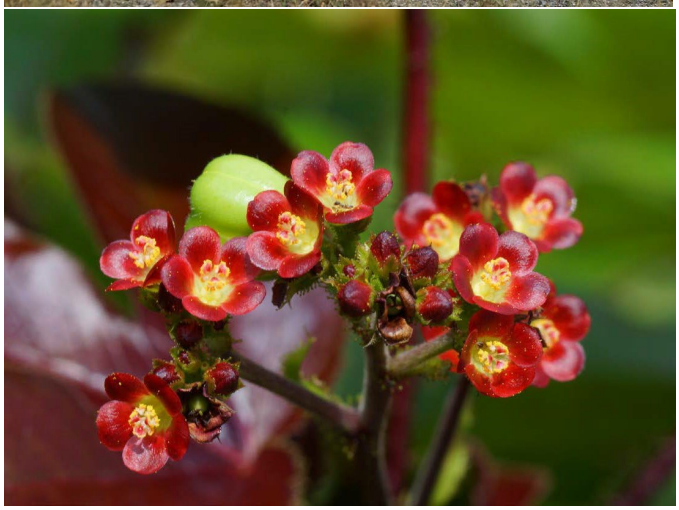


Purpose

The purpose of the Rockhampton Regional Council Biosecurity Plan (the Plan) is to provide a strategic direction for the management of invasive biosecurity matter (plants and animals) in the Rockhampton Region.

The plan establishes local priorities and sets out actions that aim to minimise the environmental, economic, social and human health impacts of invasive biosecurity matter and brings all sectors of a local community together to manage invasive biosecurity matter in the region.

The plan is supported by the subsequent development of underlying associated documents.



Scope

To manage risks associated with invasive biosecurity matter on all land and waterways within the boundaries of the Rockhampton Regional Council. This includes all land owned or controlled by the State, Council, utilities, private companies and individuals.

Links to Council's Corporate Plan

Rockhampton Regional Council's Corporate Plan 2022-2027 sets the strategic direction and priorities for our organisation for the next five financial years.

The implementation of the Biosecurity Plan enhances both our commitment to our community and our environment.

Key issues

The Plan details the key issues of invasive biosecurity matter management and outlines the objectives to achieve Council's Corporate Plan objectives. The key issues are:

1 Awareness and education,

2 Informed decision making,

3 Prevention, early detection, containment and eradication,

4 Strategic planning framework and management,

5 Effective integrated management systems,

6 Commitment and partnership.

Vision

The impact of invasive biosecurity matter on the environment, the economy, human safety and social amenity is reduced.

Principals

Awareness and education	Informed decision making	Prevention, early detection, containment and eradication	Strategic planning framework and management	Effective integrated management systems	Commitment and Partnership

Objectives

1.To provide accurate, accessible and timely information on invasive biosecurity matter. 2.To increase stakeholders awareness of invasive biosecurity matter and their impacts and individuals capacity to identify and manage them. 3.To have appropriately skilled and knowledgeable officers able to respond effectively to invasive biosecurity matter.	1.To collect, use and make available reliable data relevant to invasive biosecurity matter management. 2. To further the understanding of the biology, ecology and impacts of invasive biosecurity matter.	1. To prevent the introduction of new invasive biosecurity matter. 2.To minimise the spread of invasive biosecurity matter to new areas. 3. To contain invasive biosecurity matter within containment areas. 4.To detect and eradicate new and specific invasive biosecurity matter.	1.To maintain and enhance a planning framework for invasive biosecurity matter management. 2.To implement, evaluate and review integrated invasive biosecurity matter management programs. 3.To efficiently and adequately resource invasive biosecurity matter management programs.	1. To adopt and develop new, and improve existing, invasive biosecurity matter management practices. 2. To reduce populations and impacts of invasive biosecurity matter. 3. To protect environmental significant areas from invasive biosecurity matter management activities.	1. To establish and maintain long- term stakeholder commitment to invasive biosecurity matter management. 2. To establish roles and responsibilities for invasive biosecurity matter management. 3. To ensure compliance with the *Biosecurity Act 2014*.

Outcomes



Stakeholders are informed, knowledgeable and have ownership of invasive biosecurity matter management.	Reliable information is the basis for decision making.	Introduction, spread and establishment of invasive biosecurity matter is prevented.	Strategic directions are developed and maintained.	Effective and integrated management systems are developed and widely implemented.	All stakeholders are committed to and undertake Coordinated Management of invasive biosecurity matter.

Legislative framework

Council is responsible for the administration and enforcement of a range of State legislation and local laws within the Region. The legal framework includes:

- *Biosecurity Act 2014,*
- *Biosecurity Regulation 2016,*
- *Local Government Act 2009,*
- *Local Law No. 1 (Administration) 2011,*
- *Local Law No. 3 (Community and*
- *Environmental Management) 2011,*
- *Subordinate Local Law No. 3 (Community and Environmental Management) 2011.*

Biosecurity Act 2014

The purpose of the *Biosecurity Act 2014* is to:

- Provide a framework for an effective biosecurity system for Queensland that helps to minimise biosecurity risks and facilitates responding to impacts on a biosecurity consideration, including responding to biosecurity events, in a timely and effective way, and
- Ensure the safety and quality of animal feed, fertilisers and other agricultural inputs, and
- Help align responses to biosecurity risks in the State with national and international obligations and requirements for accessing markets for animal and plant produce, including live animal and plants, and
- Manage risks associated with emerging, endemic and exotic pests and diseases that impact on plant and animal industries, the built environment, companion or leisure animals, biodiversity and the natural environment, tourism, lifestyle and pleasure industries or infrastructure and service industries, the transfer of diseases from animals to humans and from humans to animals, biological, chemical and physical contaminants in carriers.

The Act provides a consistent regulatory approach for the management of invasive biosecurity matter across Queensland. The Act specifically requires the local governments to have a biosecurity plan for invasive biosecurity matter for its local government area and to pay an amount each financial year to the Land Protection Fund when requested.

Local Government Act 2009

Although not specifically relating to invasive matter management, the *Local Government Act 2009* provides the framework on which Council operates and includes the requirement to develop local laws.

Local Law No. 3 (Community and Environmental Management) 2011

The purpose of *Local Law No. 3* and its subordinate local law is to protect the environment and public health, safety and amenity within the Rockhampton Region. The purpose is in part achieved by providing for the elimination or reduction of risks and threats from inadequate protection against animal and plant pests, and allows for the declaration of an animal or plant of a specified species to be declared a local pest.

Strategic links to other legislation

Local governments must ensure that the plan does not breach the requirements of other legislation including:

- *Vegetation Management Act 1999,*
- *Nature Conservation Act 1992,*
- *Water Act 2000,*
- *Environmental Protection Act 1994,*
- *Wild Rivers Act 2005,*
- *Transport Infrastructure Act 1994,*



- *Land Title Act 1994,*
- *Animal Care and Protection Act 2001,*
- *Agricultural and Veterinary Chemicals (Queensland) Act 1994*, and
- *Medicines and Poisons Act 2019.*

Other documents local governments need to consider include:

- Queensland Government, Queensland invasive plants and animals strategy 2019-2024
- Queensland Government, Biosecurity Strategy 2018-2023 and 2024-2029
- Queensland Government, Queensland Wild dog management strategy 2021-2026,
- Queensland Government, Feral deer management strategy 2022-2027.
- Federal Government – Australian pest animal strategy 2017-2027
- Federal Government – Australian weeds strategy 2017-2027

Note: This list is not exhaustive.

Key Concepts

General Biosecurity Obligation

Under the Act everyone has a 'general biosecurity obligation'. This means everyone is responsible for managing biosecurity risks that are under their control and that they know about, or should reasonably be expected to know about.

Under the general biosecurity obligation, individuals and organisations whose activities pose a biosecurity risk must:

- Take all reasonable and practical steps to prevent or minimise each biosecurity risk,
- Minimise the likelihood of causing a 'biosecurity event' and limit the consequences if such an event is caused,
- Prevent or minimise the harmful effects a risk could have, and not do anything that might make any harmful effects worse.

Steps that are considered 'reasonable and practical' will vary depending on your unique situation and the risk involved. Key factors in our decision making include:

- The risk posed by the matter – the higher the risk the more action to be taken,
- How harmful an activity could be – the more harmful the more action that will be expected to be undertaken,
- How widespread or dense the infestations are – there may be different requirements depending on the scale of the infestation,
- What control methods are required and available to minimse the risk – the more methods of control available, the more work expected,
- Mitigating factors such as weather – you may be given extended periods for compliance during unfavourable weather conditions such as drought,
- How much the person managing the activity knows or should reasonably be expected to know about the risk.

Stakeholders

A number of stakeholders have interest in pest management in the region. Effective engagement of all relevant parties is critical to the success of invasive biosecurity matter management programs.

Australian Government

The Australian Government provides the framework for weeds and pest animal management in Australia and coordinates, facilitates and promotes national weeds and pest animal management policies and programs.

The Australian Government also provides leadership and coordination for emergency responses to invasive biosecurity matter of national significance.

Queensland Government

Biosecurity Queensland

Biosecurity Queensland is responsible for the development and implementation of invasive biosecurity matter management policy through legislation, research and extension education programs.

The Department coordinates State responses to invasive biosecurity matter and guide, encourage and assist local governments, regional Natural Resource Management (NRM) groups, land holders



and land managers in invasive plant and animal management.

Other Queensland Government agencies

Other Queensland Government are responsible for managing invasive biosecurity matter on state managed land and waterways in accordance with agreed local/ regional priorities.

Local Government

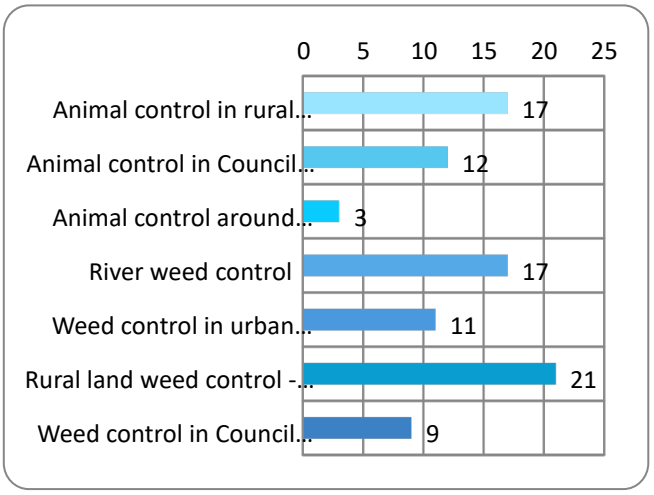
Local government has the responsibility to:

- Administer and enforce the *Biosecurity Act 2014*,
- Develop and enforce local government area biosecurity plans,
- Guide, encourage and assist regional NRM groups, community groups, land holders and land managers in invasive biosecurity matter management,
- Coordinate community invasive plant and animal management programs.
- Implement prioritised control programs on Council land.

Council implements programs based on priority work to ensure that invasive species are controlled on Council land with the resources available to the unit. Recent activities include

- Annual Parthenium control on road reserves,
- Feral pig trapping in peri-urban areas,
- Undertaking surveillance programs in identified areas,
- Coordination of 1080 baiting programs,
- Control of floating water weeds on the Fitzroy River.

Community consultation held in September 2022 has prioritised the following areas of concern for the community.



Industry organisations

Promote and facilitate invasive plant and animal management on agreed local/regional priorities and identify and fund research priorities to enable continued improvement in the management of invasive plants and animals.

Tertiary and other education research facilities

Undertake research on invasive biosecurity matter and train and educate people in best practice in the management of invasive plants and animals.

NRM groups

Promote and facilitate invasive plant and animal management on agreed local/regional priorities. Examples of local NRM groups include Fitzroy Basin Association and Capricornia Catchments Inc.

Community groups

Promote awareness of invasive plant and animal issues within the wider community.

Land managers (public and private)

Follow best practice for invasive plant and animal management on land they have responsibility for in line with relevant legislation, policy, guidelines, management plans and codes of practice.



Residents

Residents have a general biosecurity obligation under the Act.



Principles of Pest Management

This plan is based on the management principles for invasive biosecurity matter as shown below. The principles align with those in the draft Australian strategies.

Integration

Invasive plant and animal management is an integral part of managing natural resources and agricultural systems.

Public awareness

Public awareness and knowledge of invasive plants and animals must be raised to increase the capacity and willingness of individuals to participate in their control.

Public awareness programs need to be targeted to an issue and a specific population. Examples may include

- Rural landholders and feral pigs impacts and control
- Urban landholders and garden escapees of invasive plants
- Sellers of plants online.

Commitment

Effective invasive plant and animal management requires shared responsibility, capability, capacity and a long-term commitment by land owners/managers, the community, industry groups and government. Those that create the risks associated with invasive species introduction or spread and those that benefit from the invasive plant and animal management should help to minimise the impacts of invasive biosecurity matter and contribute to the costs of management.

Consultation and partnership

Consultation and partnership arrangements between land managers, local communities, industry groups, state government agencies and local governments must be established to achieve a collaborative and coordinated approach to management.

Community consultation of the draft Biosecurity Plan was conducted in August and September 2022. Results from this consultation have been used to inform the plan.

Planning

Planning for invasive plant and animal management should be based on risk management to ensure that resources target the priorities identified at local, regional, state and national levels.

Prevention and early intervention

Preventive invasive plant and animal management is generally more cost-effective than other strategies and is achieved by:

- Preventing the spread of invasive species and viable parts of these species, especially by human activity,
- Early detection and intervention.

Best practice

Invasive plant and animal management must be based on ecologically and socially responsible practices that protect the environment and the productive capacity of natural resources while minimising impacts on the community. It should balance feasibility, cost- effectiveness, sustainability, humaneness, community perceptions, emergency needs and public safety.

Improvement

Research about invasive plants and animals and regular monitoring and evaluation of control activities is needed to make evidence-based decisions and improve management practices.

Key issue 1 – Awareness and education

Effective management of invasive biosecurity matter relies on broad stakeholder knowledge of the problem and management issues. Often people are not aware of the impacts that invasive biosecurity matter has on the natural environment or primary production, or that their own actions may be contributing to the problem. Many invasive plant and animal problems are increased through lack of community knowledge and awareness.

The level of education on invasive biosecurity matter is increasing, but more targeted public education and a higher public profile are



needed. Different stakeholders require different information and support to raise their awareness and their willingness to help manage invasive biosecurity matter.

Council's website contains a significant amount of information on invasive plant and animal management and provides promotional material in several formats. Council also undertakes invasive plant and animal awareness programs at relevant events.

Council will:

- Provide accurate, accessible and timely information material and undertake awareness programs including adding factsheets to letters issued to land managers
- Encourage land managers to use a nil-tenure approach to invasive plant and animal management
- Provide warnings where human activities create favourable conditions for invasive plants and animals including signage at boat ramps and at lagoons
- Alert the public on any incursion of exotic invasive plants and animals
- Establish an awareness campaign aimed at preventing the human assisted spread of invasive plant and animal
- Investigate invasive plant and animal awareness program for schools
- Provide training to Council officers working in rural areas and Council land on invasive plant awareness
- Promote GBO to landholders through participation in shows, field days and other events.

Key issue 2 – Informed decision making

Informed decision making is required to ensure that invasive biosecurity matter is managed holistically and for the long term. Invasive plant and animal control requires an appropriate balance between prevention, surveillance and preparedness. An increasing amount of information is available on the distribution, abundance and impacts of invasive plants and animals and Council needs to keep abreast of this information so informed decisions are made.

Management practices are regularly reassessed and updated, based on the best information available, to enable the most effective and efficient application of the control options.

Council currently researches and utilises information and updates from legislation, State Government, research groups, invasive plant and animal management groups and industry to inform the program.

Council will:

- Collect, utilise and make available relevant data on invasive plant and animal management
- Consider invasive plant and animal behaviour (biology and ecology), impacts (social, economic and environmental) and control costs in the prioritisation of invasive plant and animal species
- Investigate and acquire remote GIS hardware and software for data collection
- Enhance spatial data relating to pest distribution and management activities
- Expand the use of spray intelligence software.

Key issue 3 – Prevention, early detection, containment and eradication

Prevention and early intervention is generally the most cost-effective management strategy. Once an invasive species is introduced and becomes established, it is often very difficult or even impossible to eradicate and costly to control. Everyone has a role in preventing the introduction and spread of invasive plants and animals into and around our region.

Invasive plants and animals present different levels of risk and hazard in different areas within the region. Determining risk and hazard is essential in defining priorities for prevention and management. Preventing the expansion of current invasive plant and animal distributions and populations will greatly reduce the risk of further negative impacts.

Council's aquatic invasive plant biocontrol facility is breeding biocontrol for water lettuce, salvinia and water hyacinth.

Council will:



- Develop and implement a management plan for Council land
- Develop and implement an invasive plant hygiene plan for Council's equipment to prevent and reduce the movement of invasive plants along road corridors by Council operations
- Provide Council's biocontrol to landholders
- Maintain the 1080 program
- Investigate funding opportunities for the construction and maintenance of wash-down facilities at strategic locations within the region. The community believes that a public wash bay is an important way to manage biosecurity risks with our area
- Work with local nurseries to raise awareness of potential invasive plants and suitable alternatives
- Develop a rapid response procedure for handling and reporting new infestations of high priority invasive plant and animals
- Eradicate new incursions of identified high-risk species on Council land
- Enforce legislative provisions including establishing Biosecurity programs in high priority areas
- Investigate incentive programs.

Key issue 4 – Strategic planning framework and management

A system of setting priorities for the management of invasive plants and animals is critical to ensuring that resources are used as efficiently as possible.

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. The plan offers a 'partnership' mechanism to achieve this level of coordination and efficiency, and the Act facilitates a risk-based approach to invasive plant and animal management.

Council has undertaken a risk assessment to determine the level of risk from invasive biosecurity matter to assist in setting priorities. This prioritisation is critical to ensuring resources are used as efficiently as possible.

Council will:

- Develop and implement Exotic Incursion Response Plan
- Develop and implement a Deer Management Plan
- Review and update the Pig Management Plan
- Work with other organisations or internal units to implement a coordinated replanting program in environmentally sensitive areas following significant pest control works.
- Integrate pest management planning with other processes
- Ensure plans are consistent with nationally recognised codes of practice
- Investigate funding opportunities and apply for funding to support Councils programs

Key issue 5 – Effective integrated management systems

It is widely accepted that integrated pest management systems are the most effective. That is, best practice for effective control of invasive species often involves multiple control methods. Successful long-term management of invasive biosecurity matter relies on cooperation with neighbours and the coordination of control activities.

To ensure the best possible outcomes, Council advocates and adopts best practice management for all invasive plant and animal management activities.

Council will:

- Develop new and improve existing management practices reflecting best practice
- Develop and review work instructions
- Investigate additional, improved and alternative methods of control including fire
- Discourage actions that contribute to or maintain invasive plant and animal impacts in and around urban areas
- Schedule management activities to coincide with natural population fluctuations and seasonal conditions.



Key issue 6 – Commitment and partnership

Management of invasive biosecurity matter is the shared responsibility of everyone, land managers, owners and occupiers, industry and all levels of government. Clearly defined and accepted roles and responsibilities are crucial to the success of long-term management. There is often a degree of confusion within the community about the exact responsibilities of stakeholders in invasive plant and animal management which will be addressed.

The broad scope and nature of invasive plant and animal problems demands a long-term commitment by all stakeholders. Council's Biosecurity Plan is crucial to the success of invasive plant and animal management and provides an opportunity to foster community commitment to roles and responsibilities.

Council partners with NRM and community groups, industry, local governments and State government, when appropriate, to undertake coordinated invasive plant and animal management and educational activities. Council is a member of the Capricorn Pest Management Group.

Under the *Biosecurity Act 2014* everyone has an obligation to take all reasonable and practical measures to prevent or minimise a biosecurity risk. The legislation is backed by suitable enforcement measures which are only used when other approaches have failed.

Council will:

- Maintain working partnerships between stakeholders to generate a holistic approach to invasive plant and animal management and a sense of community ownership of the problem
- Communicate roles and responsibilities for invasive plant and animal management
- Identify common objectives and opportunities for sharing resources
- Liaise with neighbouring Local Governments to work collaboratively on common issues eg deer
- Liaise with state government land owners to work collaboratively on common issues eg feral pigs in Mt Archer with QPWS
- Support research where appropriate
- Participate in regional and State forums
- Commit to resourcing invasive plant and animal management actions on a priority basis including funding, staff and equipment
- Investigate incentive programs
- Continue wild dog advisory group
- Continue membership of the Capricorn Pest Management Group (CPMG)

Strategy implementation review and performance reporting

To monitor and measure the effectiveness of the implementation of this plan, Council will prepare and maintain an Action Plan incorporating operational requirements aimed at successfully progressing the responses.

The operational actions will be assigned appropriate indicators so that performance against the outcomes can be regularly assessed.

Appropriate reporting frameworks will be put in place to ensure management can monitor performance and adjust operational effort according to circumstances.

The Plan will be reviewed midterm to ensure that it identifies and reflects changing priorities, operational capacity and the legislative framework and has been afforded adequate financial and staffing resources.



Invasive species program

Invasive species categories

In the preparation of this plan, a categorisation process for the management of invasive plants and animals has been completed. This has followed the process outlined in the Risk Prioritisation Tool.

This followed the following three staged process
Stage 1: Prioritisation of invasive plants and animals
Stage 2: Select reasonable and practicable measures
Stage 3: Select best compliance tools.

As part of stage one each invasive species listed in this document was assessed against the following categories

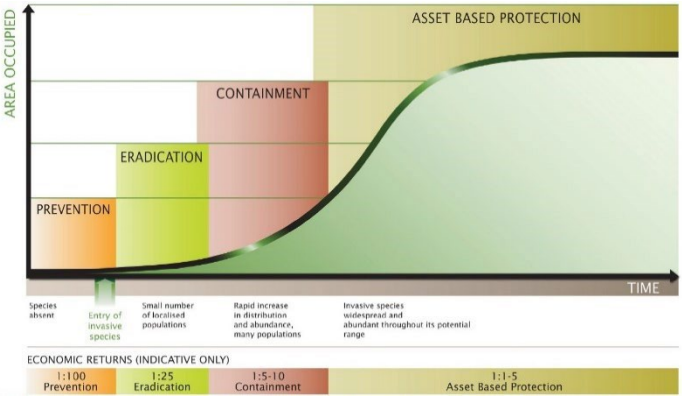
- Economic Impact
- Social Amenity Impact
- Human Health Impact
- Environmental Impact
- Invasiveness
- Potential distribution in our region

Those considered medium risk or higher then were assessed against

- Current distribution
- Cost of control
- Effectiveness of control.

Once assessed the species are categorised as

- Prevention
- Eradication
- Containment
- Asset Protection.



Strategic management categories

For each strategic management category objectives and broad strategic actions have been established in addition to the actions associated with the key issues.

Prevention

Species that are not yet present in the region.

Management objective – Maintain Rockhampton Region pest-free status by monitoring and detecting any new incursions before they become established.

Actions:

- Monitor and detect any new incursions before they become established,
- Training and awareness activities for the community to enable early detection.

Eradication

Species with a restricted distribution and low abundance that have the potential to be eradicated (removal of all individual invasive plant or animal species) from the region.

Management objective – Return the Rockhampton Region to pest-free status by eradicating all known infestations.

Actions:

- Detailed surveillance and mapping to locate all infestations/populations,
- Destruction of all infestations/populations including seedbanks and juveniles,
- Prevention of entry to the region and keeping, movement and sale within the region,
- Removal and prohibition of all cultivated plants,
- Increase stakeholder awareness and encourage reporting.

Containment

Species that are abundant throughout the region and must be prevented from spreading beyond predefined areas.

Management objective – Prevent spread to pestfree areas and minimise the impact on particular assets by containing, reducing and managing impacts on, and risk to, surrounding land uses.



Actions:

- Surveillance and mapping to locate all infested properties,
- Control of all infestations, aiming for a significant reduction in density,
- Prevention of entry to new areas,
- Enforce control of all species, aiming for a significant reduction in density through high level initial control and sustained management,
- Preventing spread from cultivated plants,
- Monitor change in current distribution,
- Increase landholders capacity to identify and manage.

Asset Based Protection

Species that are widespread throughout the region.

Management objective – To detect any significant changes in the species through surveillance. To protect high value areas of the region.

Actions:

- Monitor the spread of the species and review any perceived changes,
- Provide advice to stakeholder when requested,
- Increase landholders capacity to identify and manage.
- Control species in where assets – physical and environmental are impacted significantly eg infrastructure and environmentally sensitive areas.

No/ Limited Action

Species that have low impact on the environment or it is ineffective to manage the species

Prevention

Management objective - Maintain Rockhampton Regions pest-free status by monitoring and detecting any new incursions before they become established.

Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Plants				
African Boxthorn	*Lycium ferocissimum*	3*	✓	Present in State
Alligator Weed	*Alternanthera philoxeroides*	3		Borders region
Annual Ragweed	*Ambrosia artemisiifolia*	3		Borders region
Balloon Vine	*Cardiospermum grandiforum*	3		Present in State
Bitou Bush	*Chrysanthemoides monilifers* spp. *rotundifolia*	2*, 3, 4*, 5*		Present in State
Blackberry	*Rubus anglocandicans, Rubus fruticosus aggregate*	3		Present in State
Boneseed	*Chrysanthemoides monilifera ssp. monilifera)*	2, 3, 4, 5		Present in State
Bridal Creeper	*Asparagus asparagoides*	2, 3, 4, 5	✓	Present in State
Bridal Veil	*Asparagus declinatus*	3		Not in State
Brooms including with the following names				
▪ Flax-leaf broom	*Genista linifolia*	3		Not in State
▪ Montpellie broom	*Genista monspessulana*	3		Not in State
▪ Scotch broom	*Cytisus scoparius*	3	✓	Not in State
Cabomba	*Cabomba caroliniana*	3		Present in State
Candyleaf	*Stevia ovata*	3		Present in State



Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Cane Cactus	*Austrocylindropuntia cylindrica*	3		Present in State
Chilean Needle Grass	*Nassella neesiana*	3	✓	Present in State
Chinese Celtis	*Celtis sinensis*	3		Present in State
Cholla Cacti with the following names:				
▪ Coral Cactus	*Cylindropuntia fulgida*	3	✓	Borders region
▪ Devil's Rope Pear	*C. imbricata*	3	✓	No mapping
▪ Hudson Pear	*Cylindropuntia rosea* and *C. tunicata*	2,3,4,5	✓	Borders region
▪ Jumping Cholla	*C. prolifera*	2,3,4,5	✓	No mapping
▪ Snake Cactus	*C. spinosior*	3	✓	Present in State
Elephant Ear Vine	*Argyreia nervosa*	3		Present in State
Eve's Pin Cactus	*Austrocylindropuntia subulata*	3		Present in State
Fireweed	*Senecio madagascariensis*	3		Present in State
Gamba Grass	*Andropogon gayanus*	3		Present in State
Giant Sensitive Plant	*Mimosa diplotricha var. diplotricha*	3		Present in State
Gorse	*Ulex europaeus*	3	✓	Not in State
Groundsel Bush	*Baccharis halimifolia*	3		Borders region
Harungana	*Harungana madagascariensis*	3		Present in State
Honey Loctus	*Gleditsia triacanthos* including cultivars and varieties	3		Present in State
Hygrophilia	*Hygrophila costata*	3		Present in State
Karoo Thorn	*Vachellia karroo*			Not in state
Koster's Curse	*Clidemia hirta*	2, 3, 4, 5		Present in State
Kudzu	*Pueraria montana var. lobata syn. P. lobata, P. triloba* other than in the Torres Strait Islands	3		Present in State
Limnocharis, yellow burrhead	*Limnocharis flava*	2,3, 4, 5		Present in State
Madras Thorn	*Pithecellobium dulce*	2, 3, 4, 5		Present in State
Mexican Bean Tree	*Cecropia pachystachya, C. palmata* and *C. peltata*	2, 3, 4, 5		Present in State
Mexican Feather Grass	*Nassella tenuissima*	2, 3, 4, 5		Present in State
Miconia	*Miconia calvescens, M. cionotricha, M. nervosa, M. racemosa*	2, 3, 4, 5		Present in State
Mikania Vine	*Mikania micrantha*	2, 3, 4, 5		Present in State
Mimosa Pigra	*Mimosa pigra*	2, 3, 4, 5	✓	Present in State
Ornamental Gingers (Kahili ginger, white ginger, yellow ginger)	*Hedychium gardnerianum, H. coronarium, H. flavescens*	3		Present in State
Pond Apple	*Annona glabra*	3	✓	Present in State
Prickly Pears:				
▪ Bunny Ears	*Opuntia microdasys*	2,3,4,5	✓	Present in State



▪ Drooping Tree Pear	*O. monacantha syn. O. vulgaris*	3	✓	No mapping
▪ Prickly Pear	*O. elata*	2,3,4,5	✓	No mapping
▪ Tiger Pear	*O. aurantiaca*	3	✓	No mapping
Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Privets (broad-leaf privet, tree privet, small- leaf privet, Chinese privet)	*Ligustrum lucidum, L. sinense*	3	✓	Borders region
Sengal Tea	*Gymnocoronis spilanthoides*	3		Present in State
Siam Weed	*Chromolaena odorata, C. squalida*	3		Present in State
Sicklepods (foetid cassia, hairy cassia, sicklepod)	*Senna tora, S. hirsute, S. obtusifolia*	3		Borders region
Silver-leaf Nightshade	*Solanum elaeagnifolium*	3	✓	Borders Region
Telegraph Weed	*Heterotheca grandiflora*	3		Present in State
Thunbergias (Blue Thunbergia)	*Thunbergia grandiflora syn. T. laurifolia*	3		Borders Region
Tobacco Weed	*Elephantopus mollis*	3		Present in State
Tropical Soda Apple	*Solanum viarum*	1		Present in State
Water Mimosa	*Neptunia oleracea* and *N. Plena*	2,3,4,5		Present in State
Willows	All *Salix spp.* other than *S. babylonica, S. x calodendron* and *S. x reichardtii*	3		Present in State
Animals				
Asian Honey Bee	*Apis dorsata, A. florea, A. cerana* other than *A cerana javana*	1*		Present in State
Barbary Sheep	*Ammotragus lervia*	2, 3, 4, 5, 6*	-	Present in State
Blackbuck Antelope	*Antilope cervicapra*	2, 3, 4, 5, 6	-	Present in State
Electric Ant or Little Fire Ant	*Wasmannia auropunctata*	1		Present in State
Feral Chital Deer	*Axis axis*	3, 4, 6	-	Present in State
Feral Fallow Deer	*Dama dama*	3, 4, 6	-	Present in State
Feral Goat	*Capra hircus*	3, 4, 6	-	Escapees
Feral Red deer	*Cervus elaphus*	3, 4, 6	-	Present in State
Hog Deer	*Axis Porcinus*	2, 3, 4, 5, 6	-	Present in State
Red Eared Slider Turtle	*Trachemys scripta elegans*	2, 3, 4, 5, 6	-	Present in State
Red Imported Fire Ant	*Solenopsis invicta*	1		Present in State
Sambar Deer	*Rusa unicolor, syn. Cervus unicolor*	2, 3, 4, 5, 6	-	Present in State
Yellow Crazy Ant	*Anoplolepis gracilipes*	3	-	Present in State



*Category

1 – Must report the presence of category 1 matter to an DAF inspector within 24 hours
2 – Must report the presence/sightings of category 2 matter to Biosecurity Queensland within 24 hours
3 – Must not distribute or dispose of unless under a regulation, restricted matter permit or by an authorised officer 4 – Must not move or cause or allow to be moved
5 – Must not keep in the person's possession or under the persons control 6 – Must not give food to



Eradicate

Management objective - Return the Rockhampton Region to pest-free status by eradicating all known infestations.

Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Plants				
Badhara Bush	*Gmelina elliptica*	3		Isolated
Belly-ache Bush	*Jatropha gossypiifolia and hybrids*	3		Isolated
Camphor Laurel	*Cinnamomum camphora*	-		Isolated
Dutchmans Pipe	*Aristolochia spp.* other than native species	3		Isolated
Log Wood	*Haemaatoxlyon campechianum*	-		Isolated
Mesquites (honey mesquite, mesquite or algarroba, Quilpie mesquite)	*Prosopis flandulosa, P. pallida, P. velutina*	3	✓	Isolated
White ball acacia	*Acaciella angustissima syn. Acacia angustissima, Acacia boloviana*	Prohibited matter		Single infestation



Containment

Management objective - Prevent spread to pest-free areas and minimise the impact on particular assets by containing and managing impacts on, and risk to, surrounding land uses.*

Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Plants				
African Fountain Grass	*Cenchrus setaceum*	3		Isolated
African Love Grass	*Eragrostis curvula*	NA		Isolated
African Tulip Tree	*Spathodea campanulata*	3		Isolated
Asparagus Fern	*Asparagus scandens*	3	✓	Scattered
Athel Pine	*Tamarix aphylla*	3		Isolated
Broad Leaved Pepper Tree	*Schinus terebinthifolius*			Isolated
Cats Claw Creeper	*Dolichandra unguis-cati*	3		Scattered
Lion Tail	*Leonotis nepetifloia*	Locally declared		Widespread
Maderia Vine	*Anredera cordifolia*	3		Isolated
Mexican Poppy	*Argemone ochroleuce Sweet subsp. Ochroleuca*	Not declared		Widespread
Parkinsonia	*Parkinsonia aculeata*	3	✓	Scattered
Prickly Acacia	*Vachellia nilotica*	3	✓	Widespread
Prickly Pears				
▪ Common Pest Pear	*Opuntia stricta syn. O. inermis*	3	✓	Widespread
▪ Velvety Tree Pear	*Opuntia tomentosa*	3	✓	Scattered
▪ Westwood Pear	*Opuntia streptacantha*	3	✓	Isolated
Rats Tail Grasses (American RTG, Giant Parramatta Grass, Giant RTG)	*Sporobolus jacquemontii* *S. fertilis* *S. pyramidalis and S. natalensis*	3		Scattered
Singapore Daisy	*Sphagneticola trilobata syn. Wedelia trilobata*	3		Isolated
Sisal	*Agave vivipara (var. vivipara and cv. Marginate (sisal)), Agave sisalana (sisal/sisal hemp*	Locally declared		Scattered
Wild Sisal	*Furcraea selloa*	Locally declared		Scattered
Yellow Bells	*Tecoma stans*	3		Scattered
Yellow Oleander, Captain Cook tree	*Cascabela thevetia syn. Thevetia peruviana*	3		Scattered
Animals				
Feral Rusa deer	*Rusa timorensis, syn, Cervus timorensis*	3, 4, 6	-	Isolated

***** Single/small number of plants at a site will require eradication eg residential property with single African Tulip Tree or Yellow Oleander



Asset Protection

Management Objective – To minimise the impact of invasive plants and animals on commercial and environmental value areas.

High environmental value areas include areas declared as Matters of State Significance and those classified as Environment and Conservation under Councils town planning scheme Commercial areas may include structural assets such as roads, bridges and buildings.

Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Castor Oil Plant	*Ricinus communis*	Locally declared		Widespread
Chinee Apple	*Ziziphus mauritiana*	3		Scattered
Devil's Fig	*Solanum torvum*	Locally declared		Widespread
Elephant Grass	*Penisetum purpurem*	Locally declared		Isolated
Feral Leucaena	*Leucaena leucocephala*	Locally declared		Widespread
Grey Leaved Cordia	*Cordia sinensis*	Locally declared		Isolated
Harrisa cactus	*Harrisia martinii, H. tortuosa* and *H. pomanensis syn. Cereus pomanensis*	3		Widespread
Hymenachne	*Hymenachne amplexicaulis* and hybrids	3	✓	Scattered
Lantana creeping lantana and lantana, common lantana	*Lantana montevidensis* and *Lantana camara*	3		Widespread
Lion Tail	*Leonotis nepetifloia*	Locally declared		Widespread
Mother of Millons	*Bryophyllum delagoense syn. B. tubiflorum, Kalanchoe delagoensis*	3		Scattered
Parthenium	*Parthenium hysterophorus*	3	✓	Widespread
Rubber Vine (ornamental rubber vine, rubber vine)	*Cryptostegia madagascariensis, C. grandiflora*	3	✓	Widespread
Salvinia	*Salvinia molesta*	3	✓	Scattered
Snakeweed	*Stachytarphets spp*	Locally Declared		Widespread
Water Hyacinth	*Eichhornia crassipes*	3		Widespread
Water Lettuce	*Pistia stratiotes*	3		Widespread
Animals				
Dingo	*Canis lupus dingo*	3, 4, 5, 6	-	Widespread
Wild Dog	*Canis familaris*	3, 4, 6	-	Widespread
European fox	*Vulpes vulpes*	3, 4, 5, 6	-	Widespread
European rabbit	*Oryctolagus cuniculus*	3, 4, 5, 6	-	Widespread
Feral Cat	*Feline catus*	3, 4, 6	-	Widespread
Feral pig	*Sus scrofa*	3, 4, 6	-	Widespread



No/ Limited Action

Management Objective - To provide support and education which may include assisting other groups who wish to undertaken a program in relation to the control of these species or education of the public and appropriate signage.

For example: Signage may be provided at locations where Tilapia has been found in waterways with a bin to advise public to responsibly dispose of the fish.

Common Name	Scientific Name	*Biosecurity Act 2014* Category Numbers	WoNS	Distribution
Animals				
Indian Mynah	*Acridothere fuscus*	Not declared		Scattered
Tilapia	*Tilapia, Oreochromis and Sarotherodon spp.*	3, 5, 6, 7	-	Widespread



Glossary

asset something with environmental, social or economic value, whether publicly or privately owned, that invasive plants and animals may directly or indirectly affect. **biosecurity consideration** can be human health, social amenity, the economy or the environment.

biosecurity event an event that is, was or may become a significant problem for human health, social amenity, the economy or the environment, and is, was or may be caused by an invasive plant and animal, disease or contaminant.

biosecurity matter

- a living thing other than a human or part of a human, or
- a pathogen that can cause disease in a living thing other than a human or in a human by transmission from an animal to a human, or
- a disease, or
- a contaminant.

biosecurity risk is a risk of any adverse effect on a biosecurity consideration. A risk is or may be caused by or likely to be caused by biosecurity matter, dealing with biosecurity matter or a carrier or carrying out an activity relating to biosecurity matter or a carrier. **carrier** anything, dead or alive, biological or inanimate, that is carrying or has the potential to carry biosecurity matter.

incursion an isolated population of an invasive plant and animal recently detected in an area, not known to be established, but expected to survive for the immediate future.

invasive biosecurity matter includes only invasive plant and animals such as those listed as prohibited and restricted matter in Schedules 1 and 2 of the *Biosecurity Act 2014*. **invasive animal** an animal having, or with potential to have, an adverse environmental, economic, or social impact.

invasive plant a plant that requires some form of action to reduce its negative effects on the environment, the economy and human health and amenity.

land manager an individual, company, organisation or government that owns, leases or manages private, commercial or government land.

nil-tenure approach an approach in which a range of control methods are applied across all tenures by all stakeholders at a 'landscape' (rather than 'property') level in a cooperative and coordinated manner.

peri-urban is landscape that combines urban and rural activities. These areas commonly contain a mixture of land usages including suburban pockets, rural residential lots and small-to-medium agricultural holdings. **predation** the killing of one animal (prey) by another animal (predator) for food.

risk management the process of identifying risks and selecting and implementing measures to reduce levels of risk.

Weeds of National Significance (WONS) weeds that have been identified as among Australia's worst weeds and for which a nationally coordinated management strategy has been developed and implemented, see website for more details.

Rockhampton Regional Council

Pest Management Unit

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