Cassowary Coast Local Area Biosecurity Plan 2025-2029

Cassowary Coast
REGIONAL COUNCIL

Acknowledgement of Country

Cassowary Coast Regional Council acknowledges the traditional custodians of the land and sea on which we operate, the Mamu, Djiru, Girramay, Gulngay, Warrgamay, Jirrbal and Bandjin Peoples. We wish to acknowledge our respect for their current and emerging leaders and those in the dreaming. We thank all First Nations people for the contributions they make in building this community.

Acknowledgement of Country: NAIDOC Day at Kennedy.

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Executive Summary

The Cassowary Coast Regional Council has responsibility for an estimated 30,000 residents and a land area of approximately 4,700 square kilometres. It contains a mix of town, rural and coastal communities and boasts beautiful beaches, lush hinterland and scenic mountains. With over 3,500 businesses operating in the area, the most recognisable industries are tourism and primary production, predominantly sugar cane and bananas.

The purpose of the Cassowary Coast Local Area Biosecurity Plan (the Plan) is to bring together the diverse sectors of the local community to prevent or reduce the impacts of pests and weeds on the economy, environment and our lifestyles.

It aims to do this by:

- Explaining everybody's legal obligations under the Biosecurity Act 2014.
- Prioritising existing invasive pests based on impacts, costs and control feasibility.
- Reflecting stakeholder priorities based on feedback and participation in meetings.
- Providing residents with pest-specific information to maximise control results.

Building partnerships with stakeholders is critical to success and this Plan is the culmination of many meetings, discussions and exchanges of information. We at the Council would like to thank everyone for their input.

Together we can and will make a difference.

Image: Warrina Lakes

Introduction

The Cassowary Coast is recognised for its rich biodiversity that includes rare and wonderful plants and animals. They survive and thrive in the many natural areas of fresh water, rainforest and coastal foreshores. However, according to CSIRO Chief Research Scientist, Dr Andy Sheppard, exotic invasive species are the leading cause of biodiversity loss and species extinction in Australia. We therefore cannot afford to become complacent.

Healthy ecosystems not only support environmental diversity but sustain our fertile agricultural areas and our social communities that are reliant on human health and wellbeing. Invasive species can have profound impacts on ecosystem function, reduce biodiversity, decrease productivity and profitability of our primary industries, threaten human and animal health and our much-cherished way of life. Managing invasive species is a priority for Council and having a biosecurity plan for our local government area is a requirement of the (Qld) Biosecurity Act 2014, which came in to effect in July 2016.

The Cassowary Coast Local Area Biosecurity Plan provides the framework for the management of priority invasive plants and animals in our local government area. The Plan was developed in collaboration with various sectors including traditional owners, non-for-profit community groups, various government organisations and industry representatives involved in invasive species management. Collectively this group of stakeholders forms the CCRC NAMAC, or the Natural Assets Management Advisory Committee.

The role that the CCRC NAMAC plays regarding biosecurity is to:

1. Assist with the development, monitoring and review of the Biosecurity Plan.
2. Prioritise weeds and pest animals (invasive biosecurity matter and locally declared pest species) and develop specific obligations tailored to ensure pests are being managed to a standard that is expected by the community.
3. Ensure all stakeholders formally acknowledge and implement their roles and responsibilities in relation to the Biosecurity Plan.

Importantly the Plan is intended to foster a coordinated and co-operative approach to bring everyone together to manage invasive pests as effectively and efficiently as possible. While cooperation goes a long way to achieving the goal of pest management across our region, and is the preferred approach by all government agencies including the CCRC, there is sometimes the need for intervention, which can include compliance action and the enforcement of laws. This process will be explained throughout the course of the Plan.

Image: Hull River

ABBREVIATIONS AND ACRONYMS

BQ	Biosecurity Queensland coordinates the Queensland Government's efforts to prevent, respond to, and recover from pests and diseases that threaten the economy and environment. BQ has research, operations and policy areas and sits within the Queensland Department of Primary Industries.
CCRC	Cassowary Coast Regional Council - Council for Local Government Area covered by this plan.
CCRC NAMAC	Cassowary Coast Regional Council Natural Assets Management Advisory Committee
DoR	Department of Resources delivers pest, fire, and other maintenance activities on State land through its State Land Management work unit.
EPBC	Environment Protection and Biodiversity Conservation (Federal Act)
FNQROC	Far North Queensland Regional Organisation of Councils. Membership of Councils from Ingham north to Cooktown and west to Carpentaria.
GBO	The General Biosecurity Obligation. The principal obligation under the Biosecurity Act 2014 that requires a person to take action to reduce biosecurity risks.
NTWEP	National Tropical Weeds Eradication Program. A national eradication program delivered by Biosecurity Queensland (BQ). Targets the eradication of five weeds listed as restricted matter (categories 2, 3, 4, 5), *Mikania micrantha, Miconia calvescens, Miconia racemosa, Miconia nervosa, Limnocharis flava.*
QPWS	Queensland Parks and Wildlife Service

CCRC NAMAC MEMBERSHIP

- Cassowary Coast Regional Council (Chair)
- Department of Primary Industries - DPI through Biosecurity QLD
- Queensland Parks and Wildlife Service
- Department of Transport and Main Roads
- Department of Defence
- Ergon Energy
- Terrain NRM
- Canegrowers
- Innisfail Babinda Cane Productivity Services
- Australian Banana Growers Council
- Agforce
- Johnstone Catchment Association
- C4 (Community for Coastal and Cassowary Conservation)
- Tully Sugar
- MSF Sugar
- Mamu Aboriginal Corporation RNTBC (Registered Native Title Bodies Corporate)
- Girringun Aboriginal Corporation
- FNQROC

HOW ARE PEST PLANTS AND ANIMALS MANAGED UNDER THIS PLAN?

There are many and varied plant and animal pests that thrive in our tropical region, so to try to manage these in an organised and methodical way, pests are prioritised through an assessment process. This process is undertaken by experts and members of the CCRC NAMAC, weighing up factors such as pest numbers and distribution, spread potential, economic, social and environmental impacts, etc. This process took place on 11 July 2024 at the meeting room of Biosecurity Queensland, South Johnstone. Following this, 18 plant species and 3 animal species were prioritised for control and management strategies for at least the duration of this Plan i.e. 2025-2029.

Limnocharis flava
Miconia tree *(Miconia calvescens)*
Pond apple *(Annona glabra)*
Hymenachne amplexicaulis
Kudzu *(Pueraria montana)*
Cecropia spp
Koster's Curse *(Clidemia hirta)*
Leucaena leucocephala
Amazon frogbit *(Limnobium laevigatum)*
Feral pig *(Sus scrofa)*
Indian myna *(Acridotheres tristis)*
Siam weed *(Chromolaena odorata)*
Mikania micrantha
Water hyacinth *(Eichhornia crassipes)*
Hygrophila costata
Aleman grass *(Echinochloa polystachya)*
Thunbergia grandiflora
Salvinia molesta
Bog moss *(Mayaca fluviatilis)*
African tulip *(Spathodea campanulata)*
Feral cat *(Felis catus)*

To determine the appropriate management strategy, the below matrix is used to consider the risk posed by the pest (i.e. breeding potential and survivability) together with its feasibility for control (i.e. physical and financial constraints).

RISK	FEASIBILITY OF CONTROL				
	Negligible (>23)	**Low (>15)**	**Medium (>9)**	**High (>5)**	**Very high (>5)**
Negligible (>5)	No/Limited Action	No/Limited Action	No/Limited Action	No/Limited Action	No/Limited Action
Low (>5)	No/Limited Action	No/Limited Action	Asset Protection	Asset Protection	Asset Protection
Medium (>9)	Asset Protection	Asset Protection	Asset Protection	Containment	Containment
High (>15)	Asset Protection	Asset Protection	Containment	Containment	Eradication
Very high (>23)	Asset Protection	Asset Protection	Containment	Eradication	Eradication

BIOSECURITY ACTION PLANS FOR PRIORITY SPECIES

After assessment for the appropriate management strategy (e.g. Asset Protection, Containment, Eradication, Prevention), an Action Plan is prepared for 20 of the 21 priority pests (additional data required for Indian myna). These Action Plans detail specific requirements and strategies for management, in addition to what legal obligations are required of all people under the General Biosecurity Obligation (as set out in the Biosecurity Act 2014).

The Action Plans outline management objectives based on established principles of pest management and are designed to assist all stakeholders to:

- Understand the biology and distribution of priority pest plants and animals.
- Implement appropriate actions at the most appropriate time to have the greatest impact on the targeted pest and ensure they meet their General Biosecurity Obligation.
- Plan and coordinate pest management activities with neighbouring properties by targeting common management objectives and goals within relevant geographic areas.

These Action Plans make up the bulk of this Biosecurity Plan and are set out in Appendix 1.

PESTS AND THEIR LEGAL STATUS

Of course the 21 identified priority species aren't the only serious pests in our region, and other pests can still require control measures to be undertaken. A full list of pests declared under the Biosecurity Act 2014 which are known to be present in the CCRC Local Government Area, and Alert species (i.e. not present but are nearby and suitable habitat exists here) are listed in Appendix 2.

This list may or may not include those priority pest species listed above.

ASSISTING OTHER LEAD AGENCIES

There are a number of serious pests that are the subject of dedicated eradication or management programs. In these cases Council usually assists in a variety of ways while the nominated body takes the lead role and responsibility for the pest. These programs and their lead organisation include:

TR4 PANAMA DISEASE OF BANANAS - LEAD BODY THE AUSTRALIAN BANANA GROWERS COUNCIL

Panama TR4 is one of the greatest threats to worldwide banana production and has been found on farms in the CCRC local government area. In some countries, it has had a devastating impact on industries and livelihoods. If not managed, it has the potential to do the same in North Queensland. Under Queensland legislation if you suspect the presence of Panama disease tropical race 4 (Panama TR4), you must report it to **Biosecurity Queensland on 13 25 23** or contact the **Exotic Plant Pest Hotline on 1800 084 881**. Early detection and reporting of Panama TR4 is critical to containing this disease.

It is caused by a fungus that lives in the soil. The fungus is not eradicable and can survive in the soil for decades without host plants. Panama TR4 is easily spread by people, vehicles, machinery and animals, by the movement of infected banana plants and planting material, and contaminated soil and water. Good on-farm biosecurity measures are critical to protect banana farms from Panama TR4 and contain the disease if detected. Managing the movement of soil, water and plant material entering and exiting farms is the key to effective on-farm biosecurity.

Since the first detection of Panama TR4 in the Tully Valley in 2015, the ABGC has worked closely with the Queensland Government to control and contain this disease. From 1 July 2023, industry took the lead in disease management through the TR4 Control Program. For commercial banana farms where Panama TR4 has been detected, growers are required to follow the mandatory requirements of the Code of Practice for the management and control of Panama disease tropical race 4 on an infested property in Queensland. This initiative was developed by industry and adopted under legislation by the Queensland Government.

The Panama TR4 Grower Kit brings together the latest information about the disease and onfarm biosecurity practices specifically for banana growers.
The Banana best management practices guide (PDF, 4MB) is designed to help banana growers implement effective on-farm biosecurity measures.

The Biosecurity Code of Practice - for sourcing and planting banana plant material is a useful guide to growers about ways to minimise the risk of introduction of serious banana pests onto their farm. (https://www.abgc.org.au/wp-content/uploads/2020/08/ABGC_Biosecurity-Code-of-Practice_270820_FINAL_V1.0.pdf)

Contractors and other workers visiting banana farms need to be familiar with the relevant property's biosecurity arrangements.

Other useful resources are available at:

- ABGC website https://abgc.org.au/abgc/
- Better bananas website https://betterbananas.com.au/
- Business Queensland Priority plant pests and disease Panama disease tropical race 4 (Panama TR4) | Business Queensland

CCRC meets regularly with the ABGC to discuss ways to maximise biosecurity protections for the banana industry.

NATIONAL TROPICAL WEEDS PROGRAM

Responsible for Limnocharis (*Limnocharis flava*), Miconia (*Miconia calvescens, Miconia nervosa, Miconia racemosa*) and Mikania vine (*Mikania micrantha*). Under Queensland legislation, these weeds are classified as restricted plant matter. This means that it's a serious offence to move, keep, give away, sell or release any of these species into the environment. Council assists through awareness and reporting new detections.

TILAPIA

Tilapia were introduced into Australia in the 1970s as an ornamental fish and are now listed as a restricted noxious fish under biosecurity legislation. While no one group has the lead role on managing this aquatic pest of our river systems, it is considered to be too widespread to be able to eradicate. Likewise with the cane toad, Singapore daisy and Guinea grass. Council holds a popular fishing competition most years to raise awareness of this pest. Tilapia cannot be kept, fed, given away, sold or released into the environment and should be destroyed and disposed of immediately if caught. In southern Queensland a group is seeking a special licence for traditional owners to be able to harvest the otherwise no-take fish and convert them into fertiliser, which would then be used at a native plant nursery. Consideration may be given to a similar project being undertaken here.

DINGO MANAGEMENT

Statement from Girringun's CEO, Whitney Rassip:

> Since Girringun Aboriginal Corporation initiated and hosted the National Inaugural First Nations Dingo Forum in September 2023, there has been a stronger call to all levels of governments to look at the current peer-reviewed science and to look at the Dingo through the cultural-lens of Traditional Owners to find and utilise non-lethal alternatives in future Dingo Management within the Cassowary Coast Regional Council area. We strongly invoke the National First Nations Dingo Declaration and we welcome the support of CCRC for considering the removal of the term “Wild Dog”.
>
> It's about best practice and how we as Aboriginal People, government, farmers, conservationists and communities can co-exist with Australia's iconic top land apex predator – the Dingo.
>
> ***CEO – Whitney Rassip, Girringun Aboriginal Corporation***

NATIONAL ELECTRIC ANT ERADICATION PROGRAM

The National Electric Ant Eradication Program (NEAEP) is responsible for the eradication of electric ants (*Wasmannia auropunctata*) in Far North Queensland. Electric ants are Category 1 restricted matter under the Biosecurity Act 2014. The NEAEP has established a biosecurity zone covering six local government areas (the area of interest), consisting of a lesser restrictions area and the restricted zone established to reduce the risk of spread by enforcing movement controls in the restricted zone. Council assists by conducting scheduled surveillance for electric ants at waste transfer stations, and separately stockpiling green waste from restricted zones, through to awareness and reporting of suspicious ants. The NEAEP provides training and supplies to enable Council staff to conduct surveillance.

Image: Tilapia Tournament, Warrina Lakes

LEGAL OBLIGATIONS OF RESIDENTS AND PROPERTY OWNERS

Under the Queensland Government's Biosecurity Act 2014, all Queensland residents and property holders have a 'General Biosecurity Obligation' (GBO). This means that everyone has a legal obligation to manage biosecurity risks that are under their control and that they know about or should reasonably be expected to know about. For full details go to: General biosecurity obligation | Business Queensland.

While all property owners, including Council, have legal obligations to manage biosecurity matter on their property, the most effective way to control invasive species involves coordinated control measures being undertaken across multiple properties. This concept is referred to as 'nil-tenure' in recognition that pest species do not observe legal property boundaries, and as such, should be the target of coordinated and collaborative control measures undertaken across the broader landscape.

This could be in the form of multiple neighbours getting together to e.g. remove African tulip tree from a watercourse, or Council planning to eradicate pond apple within an entire catchment. Such approaches typically provide a much more lasting solution as it minimises the likelihood of the pest recolonising the area.

WHAT ARE THE BIOSECURITY RISKS YOU ARE EXPECTED TO KNOW ABOUT?

As residents or landholders you are responsible for managing biosecurity risks that you know about or could reasonably be expected to know about. You are not expected to know about all biosecurity risks, but you are expected to know about risks associated with your day-to-day work and your hobbies, for example:

- If you are a commercial grower, you are expected to stay informed about the pests and diseases that could affect or be carried by your crops, as well as weeds and pest animals that could be on your property. You are also expected to control them.
- If you are a livestock owner, you are expected to stay informed about pests and diseases that could affect or be carried by your animals, as well as weeds and pest animals that could be on your property. You are also expected to control them.
- If you are a landowner, you are expected to stay informed about the weeds and pest animals that could be on your property. You are also expected to control them.
- If you transport agricultural produce, you are expected to check whether the transportation could spread diseases or pests. If it could, you are expected to manage this appropriately.
- If you live or work in a highly promoted biosecurity zone (e.g. are a builder or developer in an electric ant biosecurity zone), you are expected to know what you can and cannot move into and out of the zone, and what other precautions are required.
- If you are a residential gardener, you are expected to know basic information about how to reduce the risk of spreading a pest or disease, as well as the problem pests in your local area. You are also expected to control them on your property.

HOW CAN YOU REDUCE BIOSECURITY RISKS?

In most cases, you can reduce biosecurity risks by following simple steps, for example:

- Carefully examine animals before moving them. Moving animals will pose a biosecurity risk if they are carrying pests or diseases that could affect agricultural industries. Check for animal diseases that could be spread by contact with other animals, and for weed seeds.
- Isolate in-coming stock in a holding yard for a period of 7 days.
- Closely inspect pot plants and potting mix before taking them home. They will pose a biosecurity risk if they are carrying electric ants or plant pests, weed seed or diseases that are not already present in your suburb or region.
- For landholders and managers it can be useful to develop a Farm Biosecurity Plan which sets out information and strategies for identifying, preventing and dealing with biosecurity risks, specific to your property. A good guide and template, along with a Biosecurity Toolkit can be found at:
  Farm-Biosecurity-Action-Planner-2019.pdf (farmbiosecurity.com.au)
  www.farmbiosecurity.com.au/toolkit/

WHAT WILL HAPPEN IF SOMEONE DOES NOT MEET THEIR GENERAL BIOSECURITY OBLIGATION?

A biosecurity officer can also issue a biosecurity order requiring specific action to be taken within a reasonable time. When necessary, Biosecurity Queensland, or the Cassowary Coast Regional Council can take formal compliance action to ensure an individual, business or other organisation improves the way they manage biosecurity risks. Not complying with the GBO or a biosecurity order is an offence. The required works can also be ordered and undertaken by a third party with costs recoverable from the property owner/manager.

Useful Links: Weeds Australia
Invasive Species Council

HOW TO MEET YOUR GENERAL BIOSECURITY OBLIGATION

The following tables identify different groups of landholders, managers or organisations that have a role to play in the management of invasive biosecurity matter (pest plants and animals).

STEP 1. The actions identified below are the minimum actions required for all landholders, managers and tenants that are responsible for managing a property or parcel of land.

STEP 2. Specific sector-based obligations are listed below the All-Landholders section indicating specific actions related to your industry, business or area of responsibility e.g. a power corridor manager or nursery retailer.

STEP 3. For priority target weeds there are additional clearly defined requirements – these are located within the action plans section of document and should be read in conjunction with the below tables.

SECTOR BASED ACTIONS

SECTOR	ACTIONS REQUIRED
All Landholders and Land Managers	• Maintain awareness of the priority pest plants and animals listed in this biosecurity plan and prevent their establishment or spread • Develop and implement a property Biosecurity Plan (see link on a previous page for a template) • Improve property biosecurity by establishing vehicle, machinery, property and people hygiene protocols (including wash down bay, no-go areas, entry register etc). • Install and follow property and site-specific signage identifying any biosecurity risks. • Report new or suspected pests immediately to the CCRC or BQ. • Do not dump unwanted aquariums or their contents into dams or natural waterways. • Do not illegally dump garden waste. Compost it or dispose of it at a Council waste transfer station. • Do not keep rabbits, ferrets or other prohibited animals or plants. • Know your biosecurity zones and do not move high risk materials such as soil or pot plants between zones. • Control pest plants prior to seeding, particularly in high risk areas such as watercourses, roadways and property boundaries. • Do not move soil or machinery that may have biosecurity risks attached (e.g. weed seeds). • Clean all machinery and watercraft when moving between different waterways. • Control feral pigs and cats on your property using methods endorsed by this plan. • Provide/maintain access for existing pest control programs.

SECTOR	ACTIONS REQUIRED
Primary Producers Banana and/or Sugar Cane	• Be aware of priority biosecurity risks to your industry. • Know where pest animals are (or travel) to help direct control efforts. • Control weeds as part of routine maintenance. • Control feral pigs and provide damage estimates to your industry contact. • Ensure property protocols are developed and followed. • Rehabilitate degraded and bare land with local native plant species, particularly along waterways.
Primary Producers Grazing	• Ensure fodder crops (e.g. pasture grasses) are contained to production areas and managed to reduce impact on neighbouring properties. • Take responsibility for pest species expanding beyond your property. • Control weeds on your property, particularly those near property boundaries and waterways. • Rehabilitate degraded and bare land with local native plant species, particularly along waterways. • Check the invasive potential of any new fodder plant.
Primary Producers Horticulture other than Bananas	• Ensure planting stock is clean and free from contaminants. • Take responsibility for pest species on your property and any escaping from your property. • Monitor and control plantation and weed species growth in drains, creeks and other areas outside the production areas. • Ensure equipment leaving or entering your property is clean of contaminants.
Primary Producers Forestry	• Ensure non-native species are contained to production areas. • Ensure planting stock is clean and free from contaminants. • Monitor and control plantation species growth in drains, creeks and other areas outside the production areas . • Ensure equipment leaving or entering your property is clean of contaminants. • Control weeds on your property, particularly those near property boundaries and waterways. • Rehabilitate degraded and bare land with local native plant species, particularly along waterways.

SECTOR	ACTIONS REQUIRED
Retail Outlets including: Plant Nurseries Market Gardens Pet Shops	• Be aware of prohibited, restricted and other invasive species. Do not stock or sell these species to the public. • Ensure potting medium and plant stock is clean and free from weed seeds and ants before movement. • Prevent the sale of pest fish and other prohibited animals e.g. rabbits. • Do not dump unwanted aquariums or their contents into dams or natural waterways. • Develop and implement a best-practice management plan. • Monitor Council and State biosecurity websites for new and emerging pest species.. • Compost green waste or dispose of at a Council waste transfer station. • Ensure your nursery/growing areas are clean and weed free. • If you are not sure if something is a weed, check with the CCRC nursery or biosecurity officer. • Label all stock correctly. • Promote responsible pet ownership including the GBO as it applies to aquariums and disposal of unwanted pets.
Rural and Urban Residential Landholders	• Do not dump garden waste into the local environment. Compost green waste or dispose of it at a Council waste transfer station. • Select locally suitable native plants for gardens. • Participate in local area management activities (Landcare or community groups often undertake environmental activities). • Report occurrence of priority pests and weeds. • Install pest exclusion fencing where necessary. • Do not keep rabbits, ferrets or other prohibited animals or plants. • Do not dump unwanted aquariums or their contents into dams or waterways.
Public Land Managers QPWS, DNRM, DEPARTMENT OF DEFENCE, LOCAL GOVERN-MENT	• Promote sound practices through education and awareness. • Conduct risk assessments prior to undertaking work. • Conduct aerial/ground surveys if necessary. • Maintain vehicle and equipment hygiene. • Implement visitor/user management (recording) systems. • Collect and store positive and negative data for records. • Routinely monitor what's happening on the land. • Engage with neighbouring landowners in joint management programs. • Maintain operational works programs and property pest management plans. • Undertake fire planning & management. • Release and monitor approved biological control agents.

SECTOR	ACTIONS REQUIRED
Corridor and Infrastructure Managers Road and Rail, Power and Communications, Water and Sewerage Network	• Ensure best management practice is adopted in operations. • Report any outbreaks immediately. • Conduct risk assessments and aerial/ground surveys if needed. • Allocate resources to prevention, monitoring and control activities. • Ensure vehicle/ equipment hygiene is standard practice. • Organise signage be installed in high risk areas. • Manage control targets on easements and tenures. • Engage with neighbouring landowners in joint management programs. • Allocate sufficient resources to support management activities. • Maintain GIS database for operational, design and reporting activities. • Work with biosecurity staff and contractors to maintain buffer areas. • Manage all activities to minimize the risk of spread of priority pests. • Respect landholders' expectations in regard to property access.

PRIORITY WEEDS AND PEST ANIMALS

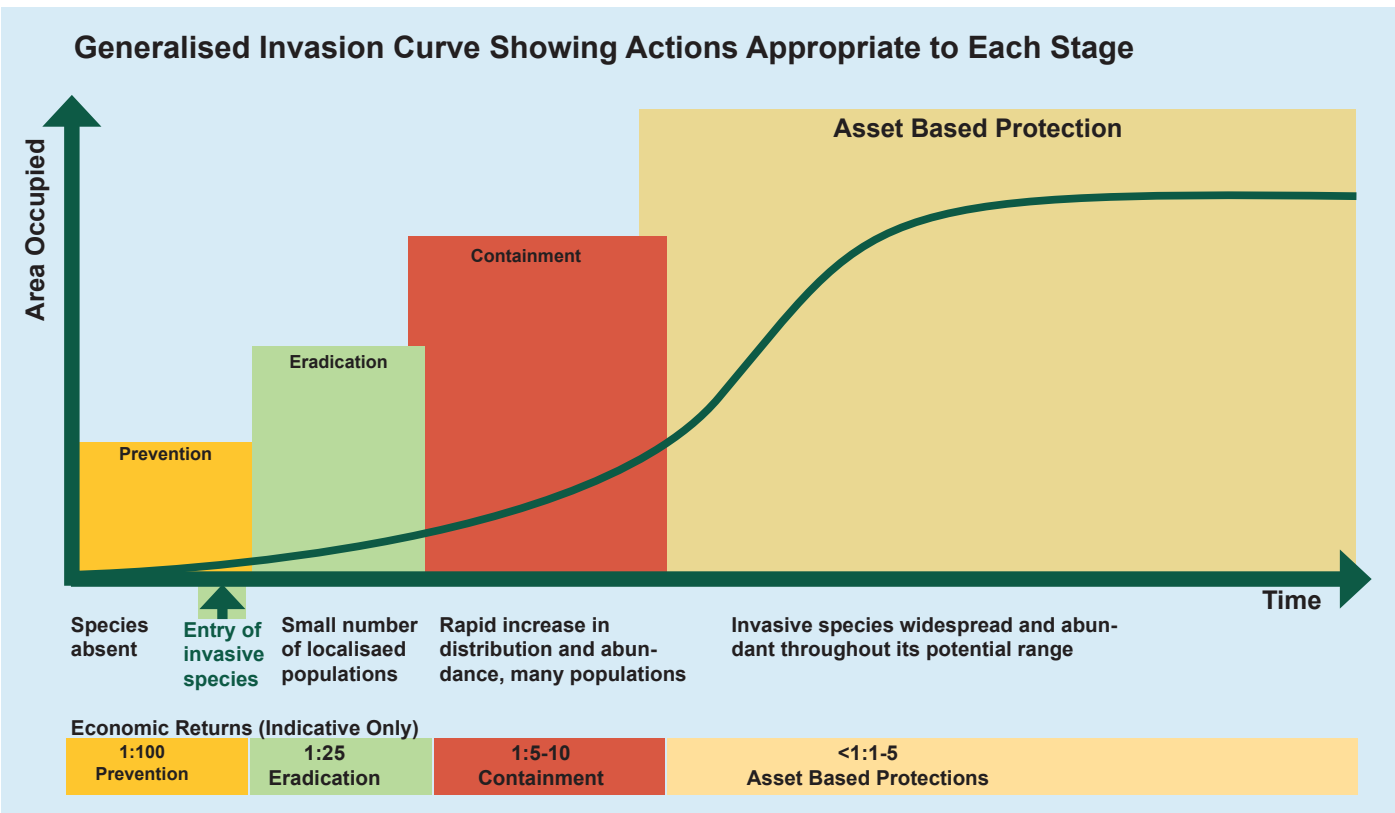
Restricted species known to occur in the CCRC local government area, along with locally declared priority pest plants and animals, are included in Appendices 2 and 3 respectively.

Outline of the material contained within biosecurity action plans for priority species:

The invasion curve concept describes the management objectives and reasoning behind each of the management zones in the biosecurity action plans. Those zones are Prevention, Eradication, Containment and Asset Protection.

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

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



Source: Biosecurity Strategy for Victoria 2009

PRIORITY WEEDS AND PEST ANIMALS

To effectively address the impacts of invasive plants and animals, management needs to consider the context of the full continuum of activity as it relates to biosecurity. This continuum is shown in the generalised invasion curve.

Key management stages of the invasion curve are:

- prevention of an incursion (including planning and preparedness)
- eradication of an incursion (usually requiring early detection)
- containment of an incursion (to a geographical area)
- protection of assets (from impacts once an invasive plant or animal is established).

The invasion curve includes an indicative economic return for management/action at each stage. The return on investment for prevention is higher, with total costs lower and likelihood of success higher compared to management of localised or widely established populations.

Operationally, the approach required to eradicate new invasive plants and animals is quite different from that required to protect assets from established invasive plants and animals. Managing established invasive plants and animals focuses on mitigating impacts on assets, as eradication may not be feasible.

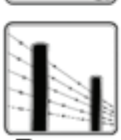
The roles and responsibilities of each stakeholder change along the invasion curve, in line with the actions needed and who is best placed to carry them out. Given the higher costs and greater return on investment at the beginning of the invasion curve, governments have more involvement in the earlier stages of management—prevention, eradication and, to an extent, containment. The use of public funds at this stage provides for greater timeliness and efficiency, particularly when the impact or beneficiaries may not be fully understood.

Protection of assets (whether public or private) from the impacts of established invasive plants and animals is better managed locally by the owners and managers of those assets, or in some cases by local community groups. However, prevention and early detection can also be highly effective at a property level. Actions are most effective when prioritised through risk management and planning.

The management focus for invasive plants and animals may vary across spatial scales. For example, the management strategy for a certain invasive plant may be asset protection at the state level, but for some regions it may be containment within that region, while at a local level, it may be eradication. Therefore, the management of invasive plants and animals requires planning and coordination at national, state, regional, local, and even property levels.

Image: Centralised Invasion Curve

KEY TO CONTROL METHODS

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

KEY TO CONTROL METHODS

	**Pesticide**	Pesticides are used in certain situations to control anything from ants to wild dogs. There are strict usage and permit requirements for many pesticides. They can be an effective tool over a large area.
	**Trapping**	Trapping is widely used for feral pigs but can also be used to control wild dogs, feral cats and feral deer. Trapping is labour intensive but can be very target specific when conducted using best practice tools.
	**Shooting**	Shooting or hunting is sometimes used to control individual animals. It is usually less effective and even disruptive to other control strategies, but is a useful tool to supplement trapping and baiting.

KEY TO MODES OF SPREAD

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

APPENDIX 1

PRIORITY PEST ACTION PLANS

ACTION PLAN: African Tulip *(Spathodea campanulata)*

Details

Description: African tulip is an evergreen tree to 24 m. It has broadly oval shaped leaves with distinctive veins. Leaves are bronze coloured when young turning glossy green as they mature. Flowers are a large orange to red with frilled yellow margins on the petals. Seeds are wind dispersed and form in elongated pods up to 20cm long.

Distribution: African tulip is relatively common in urban areas, near houses and along creek lines and waterways. Dense infestations occur in some locations particularly along waterways.

Impacts: African tulip is a serious environmental weed that can form dense woody thickets. Being wind dispersed it can colonise intact native vegetation and reach remote locations. It suckers readily when disturbed making it challenging to control. The flowers are toxic to native bees.

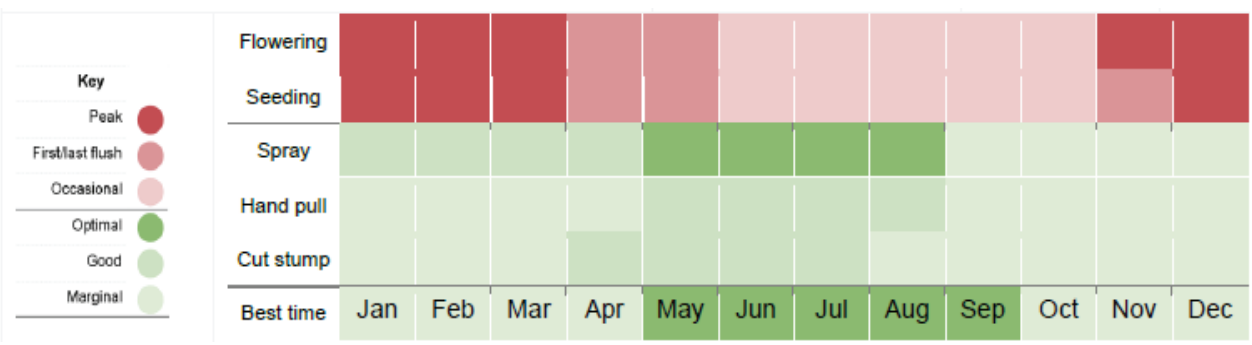
Key projects: African tulip is targeted for control in areas to protect key environmental assets.

Management Calendar

Key information: Major cyclones have likely exacerbated the spread of African tulip. Newly developed herbicides in encapsulated form offer a safer and effective mode for control. Contact the CCRC Biosecurity Officer for more information on 1300 763 903.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: African Tulip *(Spathodea campanulata)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act African tulip must not be given away, sold, or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016 African tulip may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed.

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

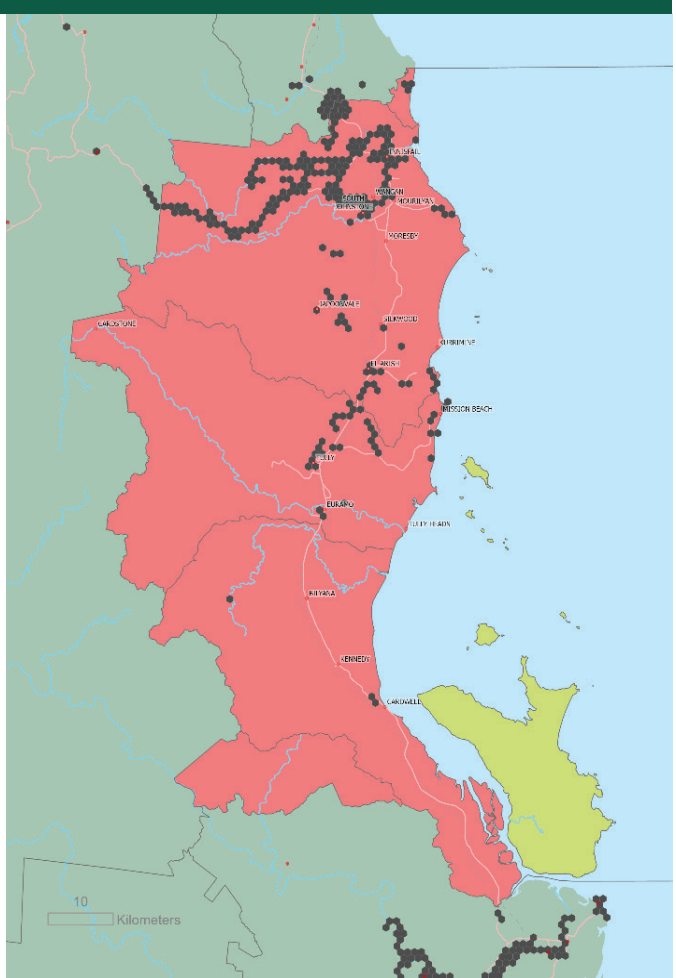
Reasonable and Practical Measures

In eradication zone:

- Offshore islands are a priority for eradication. Report African tulip to CCRC on 1300 763 903

In the asset protection zone:

- Identify and protect key assets such as waterways, woodlands and sensitive environmental areas.
- Ensure machinery is free from seeds and plant material prior to beginning works or moving to new locations.
- Waterways and plants around settlements should be treated annually to prevent spread to adjoining environmentally sensitive areas.
- Manage risk of spread from your property and protect priority assets using best practice methods to control infestations where practical to do so.
- You are responsible for ensuring materials or products leaving your property are free from African tulip seeds or plant material.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Aleman grass *(Echinochloa polystachya)*

Details

Description: A robust, upright perennial aquatic grass to 2 metres with distinctive silver blue sheen. Aleman grass grows in shallow wetlands as well as deep water and forms spreading rafts of floating stems. It produces flowers but generally spreads by vegetative reproduction.

Distribution: Currently restricted to the Tully-Murray and Japoonvale areas.

Impacts: Aleman grass blocks drainage systems in cane farms and waterways. It can grow in deeper water than Olive hymenachne. Aleman grass readily invades and outcompetes native plants in wetlands and waterways. Dense infestations can prevent fish passage and breeding opportunities.

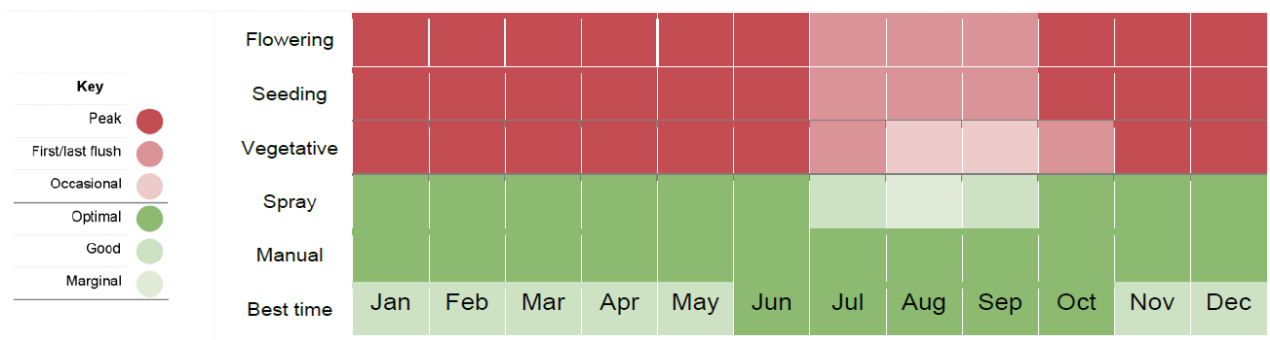
Key projects: Several known outbreaks are under intensive control. Delimitation is required to determine distribution beyond known sites.

Management Calendar

Key information: This is a declared local pest species under the CCRC's Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Aleman grass *(Echinochloa polystachya)*

Biosecurity Requirements and Legal Obligations

This is a declared local pest species under Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Local Laws Apply

- Must not breed
- Must not propagate
- Must not introduce or spread
- Must not sell or supply

General Biosecurity Obligation

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

Reasonable and Practical Measures

In the prevention zone:

• Contact CCRC on 1300 763 903 to report any suspect plants.

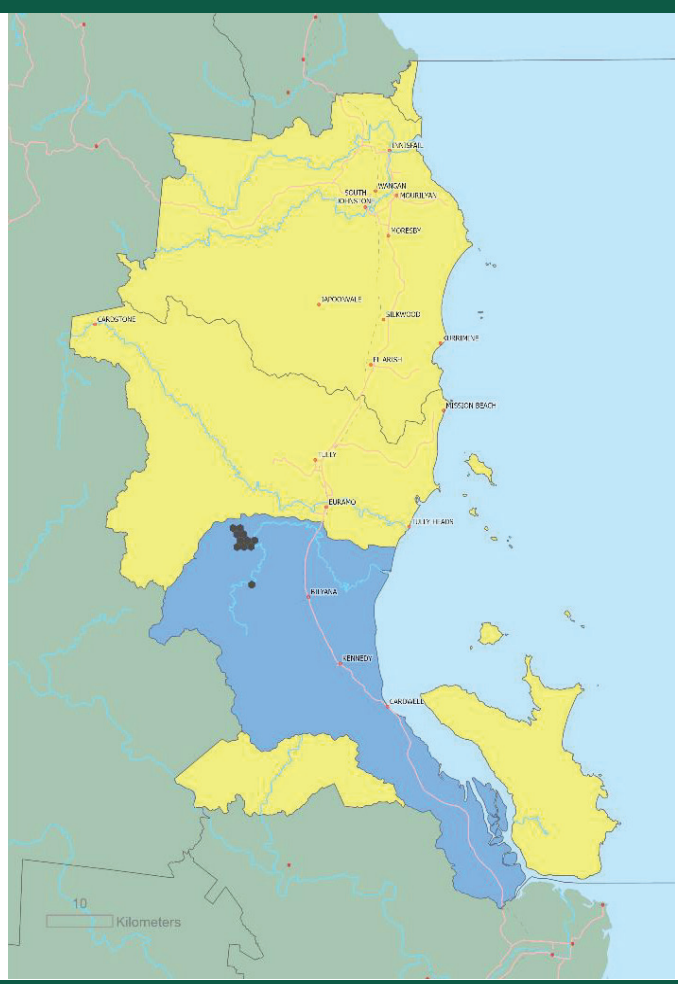
In the containment zone:

• Identify and protect key assets such as fish passage and breeding areas, drainage infrastructure and important wetlands. Undertake best practice control of infestations to protect high value areas.

• Spell any stock in a holding paddock for at least 7 days before moving from known infestation areas.

• Ensure machinery is free from seeds and plant material when working in or near waterways and drains.
annually to prevent spread to adjoining areas and to manage the risk of spread from your property, where practical to do so.

• You are responsible for ensuring materials or products leaving your property are free from seed or plant material.



Cassowary Coast Biosecurity Plan 2025-2029

ACTION PLAN: Amazon frogbit *(Limnobium laevigatum)*

Details

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

Distribution: Currently the target of a control and containment program in the Barron River. The only known infestation in the CCRC local government area is near an aquatic plant nursery at Palmada Road, south of Innisfail.

Impacts: A floating aquatic weed that can smother and choke waterways. It floats on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange impacting fish and aquatic organisms.

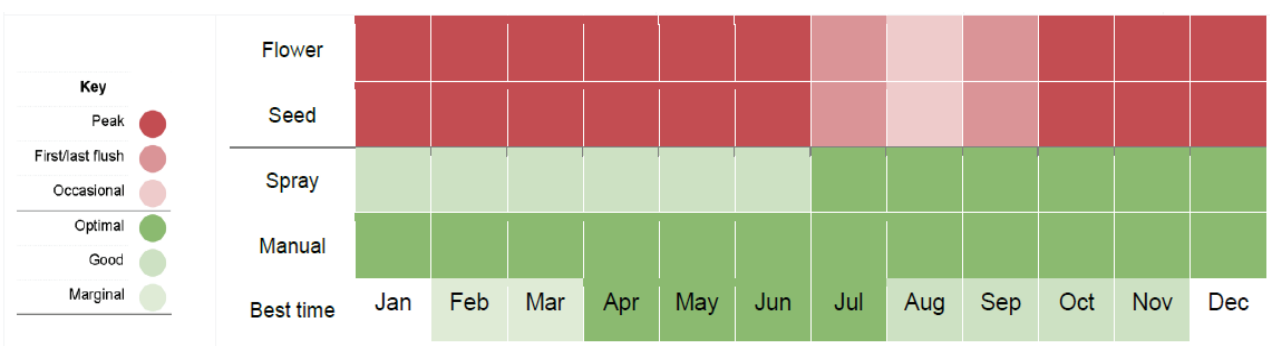
Key projects: The infestation at Palmada Road near Innisfail is the target an eradication program. Recently developed aquatic herbicides offer new tools for control of Amazon frogbit.

Management Calendar

Key information: This is a declared local pest species under the CCRC's Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Amazon frogbit *(Limnobium laevigatum)*

Biosecurity Requirements and Legal Obligations

This is a declared local pest species under Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Local Laws Apply

- Must not breed
- Must not propagate
- Must not introduce or spread
- Must not sell or supply

General Biosecurity Obligation

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

Reasonable and Practical Measures

In the prevention zone:

• Ensure sources of aquatic plants for aquariums and water features are weed free.

• Report any suspected outbreaks or detections to CCRC on 1300 763 903.

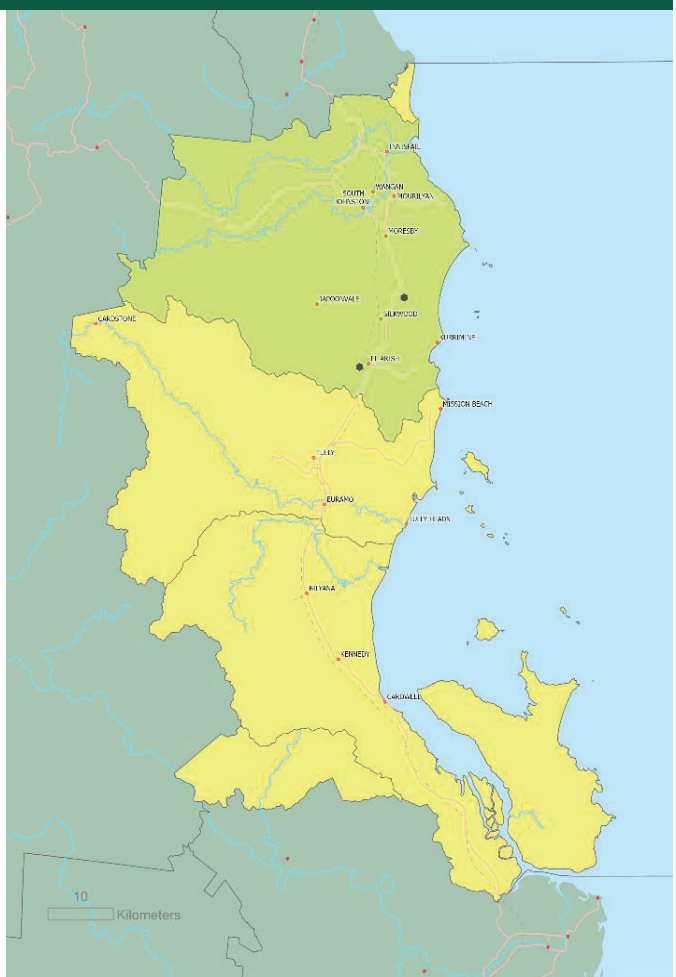
In the eradication zone:

• Contact CCRC on 1300 763 903 to report any suspect plants

• Ensure soil or vegetation from known infestations is not moved from the site unless it is disposed of in accordance with the regulation.

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

• Landowners or occupiers can assist CCRC by maintaining easy access to infestations and by assisting with control activities.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Bog moss *(Mayaca fluviatilis)*

Details

Description: An aquatic plant with thready leaves which resemble moss. It grows either fully or partially submerged in slow moving water courses or on the margins of wetlands. The plant has a distinct moss-like appearance with small pink three-petalled flowers.

Distribution: Bog moss is currently limited to a naturalised infestation in the lower Liverpool Creek region.

Impacts: Bog moss forms dense and impenetrable mats which impede water flow, block out light and create a physical barrier for aquatic life. The dense growth can quickly block drainage channels and prevent access to water bodies.

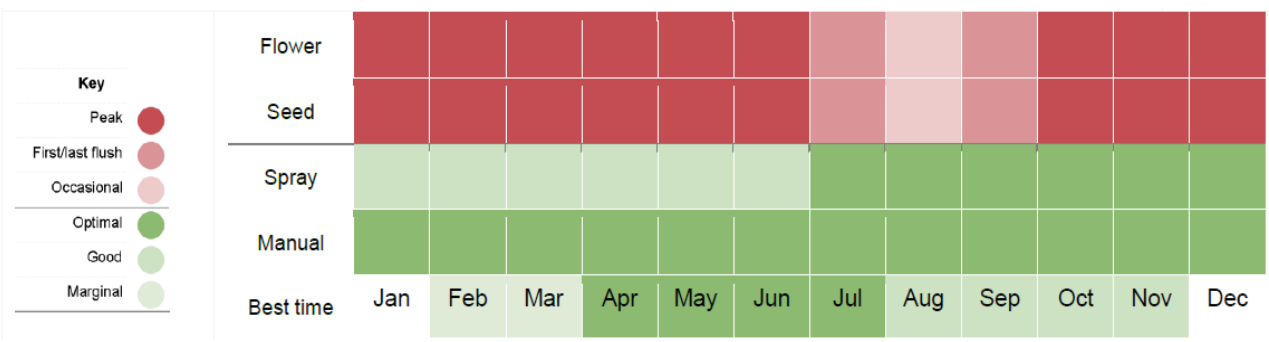
Key projects: Planning is underway to make Bog moss the target of a control program.

Management Calendar

Key information: This is a declared local pest species under the CCRC's Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Bog moss *(Mayaca fluviatilis)*

Biosecurity Requirements and Legal Obligations

This is a declared local pest species under Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Local Laws Apply

- Must not breed
- Must not propagate
- Must not introduce or spread
- Must not sell or supply

General Biosecurity Obligation

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

Reasonable and Practical Measures

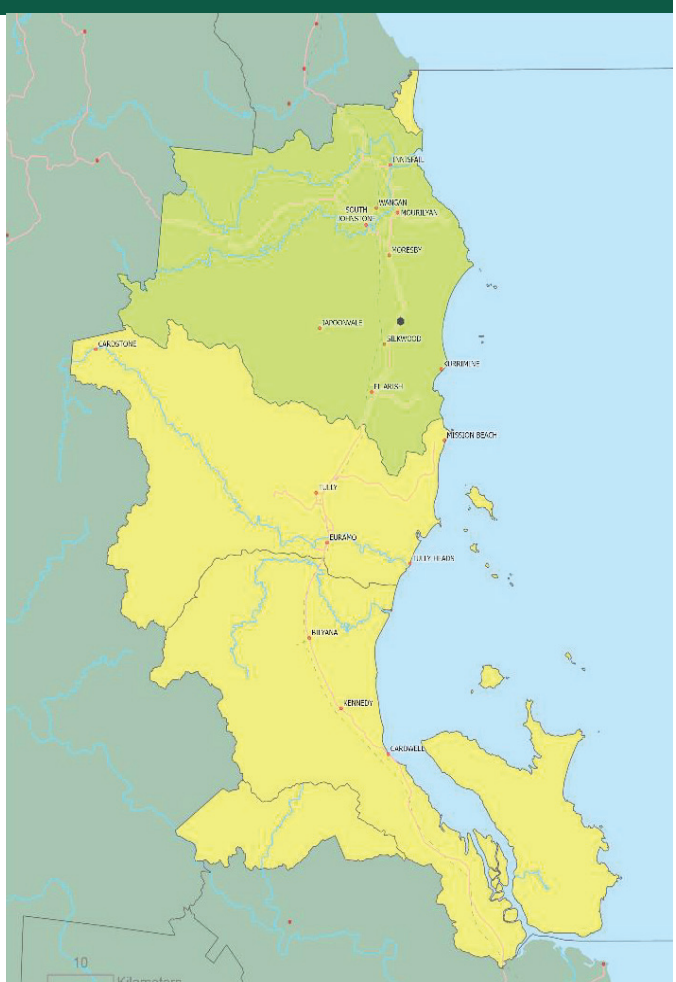
In the prevention zone:

• If you think you have seen a new infestation of Bog moss outside its known distribution, contact CCRC on 1300 763 903.

In the eradication zone:

• Ensure soil or vegetation from known infestations is not moved from the site unless it is disposed of in accordance with the regulation.

• All suspected sightings of Bog moss should be reported to CCRC on 1300 763 903. Landowners or occupiers can assist CCRC by maintaining easy access to infestations and by assisting with control activities.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Feral cat *(Felis catus)*

Details

Description: Feral cats are derived from domestic cats which have a long history of naturalisation in Australia. They are similar in appearance to domestic cats but are generally larger in size particularly around the head and shoulders. Fur is generally short, and they may be any colour. Males may weigh up to 6 kg, females up to 4 kg. They are usually most active at night.

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

Impacts: Feral cats eat any small to medium prey item they can catch including birds, reptiles, amphibians, mammals, fish and insects. They compete directly with native carnivores and carry toxoplasmosis which is harmful to mammals, including humans. Feral cats scavenge around towns and may prey on domestic pets and poultry. They are potential carriers of the rabies virus if it were to enter Australia.

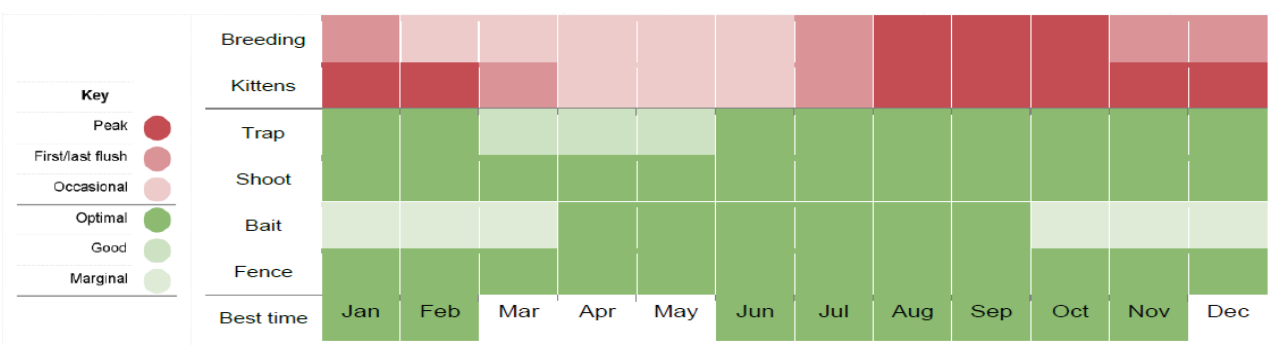
Key projects: Feral cats are usually not managed on a landscape scale but are targeted in species recovery programs and protection of key environmental assets. Domestic cats are managed in accordance with local laws. For domestic cat enquires contact 1300 763 903.

Management Calendar

Key information: Feral cats in Australia kill over 1.5 billion native mammals, birds, reptiles and frogs each year. For the purpose of this plan, feral cats are classed as any cats which do not have an owner. Domestic cats are managed separately under Local Laws.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Feral cat *(Felis catus)*

Biosecurity Requirements and Legal Obligations

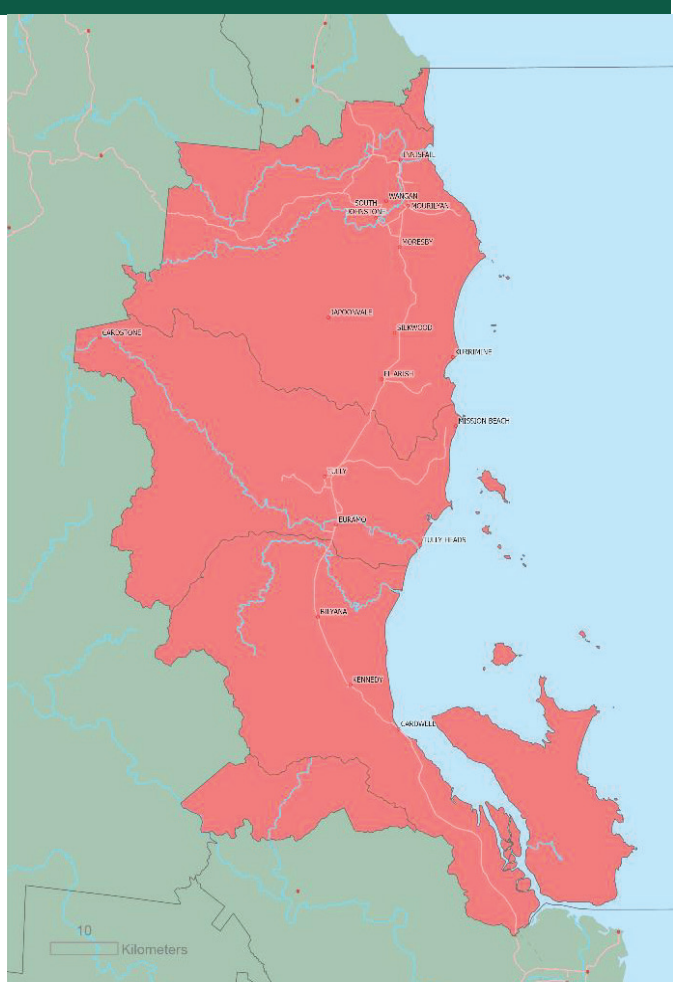
Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 6 – DO NOT FEED

Obligations relating to restricted matter
Under the Act, feral cats must not be given away, sold, or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, deceased feral cats may be disposed of by:
• Deep burial
• Transporting to a waste facility securely (contact CCRC on 1300 763 903)

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

Reasonable and Practical Measures

In the asset protection zone:
• Feral cats are restricted matter under the Biosecurity Act 2014. They must not be moved, fed, given away, sold, or released into the environment without a permit. This includes releasing or dumping of domestic cats.
• The description of feral cat includes Bengal cat hybrids derived from Prionailurus bengalensis x Felis catus. Any other species of cat is prohibited in Queensland and must be reported within 24 hours to Biosecurity Queensland on 13 25 23.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Feral pig *(Sus scrofa)*

Details

Description: Feral pigs are usually black, buff or spotted black or white. They are generally nocturnal, omnivorous and can range from 5 to 50 square kilometres. Feral pigs breed throughout the year often producing two weaned litters per year.

Distribution: Common and widespread within the Cassowary Coast Region and the Wet Tropics although DNA testing indicates there are distinct populations.

Impacts: Feral pigs damage crops, stock, property and the natural environment. They transmit disease and could spread exotic diseases such as foot and mouth if this was introduced to the country. They have been identified as a likely vector of Panama TR4.

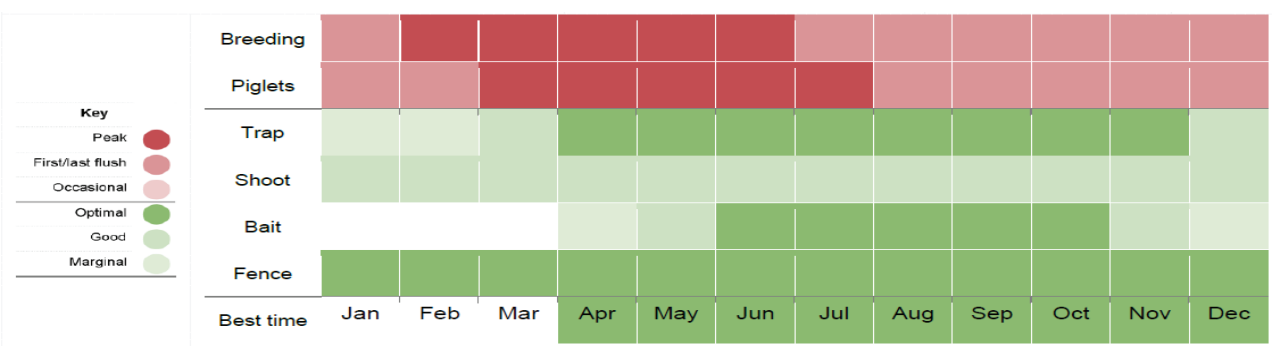
Key projects: CCRC and QPWS (Ph 07-4048 3713) both provide trap loan services and can assist with co-ordinated baiting activities. Local agricultural producers can gain assistance through their industry support officers.

Management Calendar

Key information: A coordinated approach with multiple neighbouring landholders is strongly recommended to achieve best results.
Do not leave fruit produce lying around as unmonitored food sources, as this exacerbates the problem.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Feral pig *(Sus scrofa)*

Biosecurity Requirements and Legal Obligations

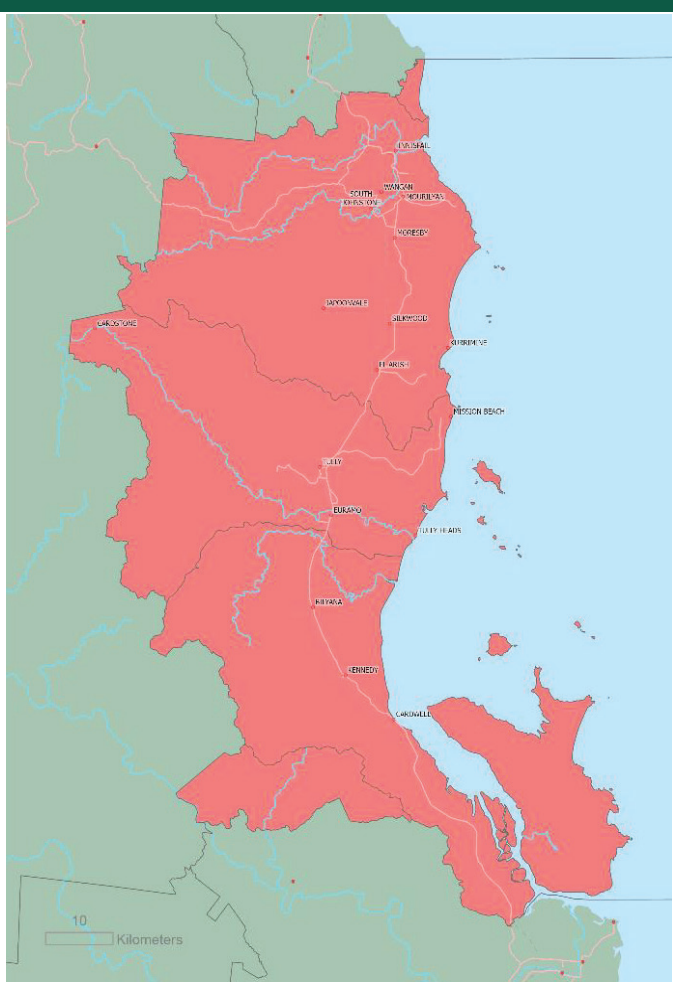
Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE
Category 4 – DO NOT MOVE
Category 6 – DO NOT FEED

Obligations relating to restricted matter
Under the Act feral pigs must not be given away, sold or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, deceased feral pigs may be disposed of by:
• Deep burial
• Transporting to a waste facility securely (contact CCRC on 1300 763 903)

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

Reasonable and Practical Measures

In the asset protection zone:
• Ensure best practice management actions are in place to reduce opportunities for feral pigs to access food sources.
• Identify high value assets and protect them from impacts where possible. Get involved in a coordinated management project in your area.
• Smaller valuable assets like ornamental and market gardens or individual wetlands can be readily protected using exclusion fencing.



Cassowary Coast Biosecurity Plan 2025-2029

ACTION PLAN: Hygrophila *(Hygrophila costata)*

Details

Description: An erect, emergent aquatic herb up to 1m tall. Generally growing in thick mats on banks and water's edge but extending over the water. Small papery white flowers form at the junction of the stem and leaf.

Distribution: Restricted to the lower Liverpool Creek. Also present in the Russell River to the north of the Cassowary Coast region. Eradicated from Maria Creek NP. Introduced as an aquarium plant.

Impacts: Hygrophila smothers riparian vegetation and blocks waterways. It can provide habitat for pest fish species like Tilapia. Hygrophila forms dense mats which may restrict recreational activities or alter hydrology.

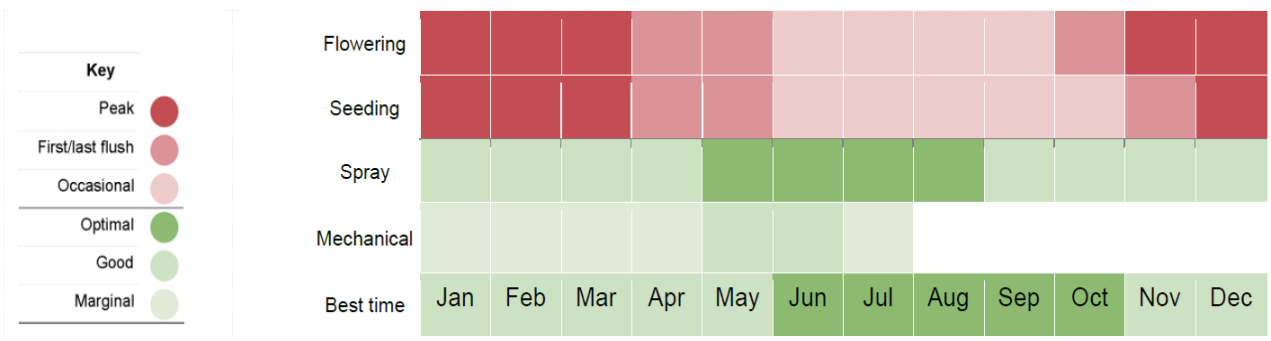
Key projects: Has been the target of eradication from Liverpool Creek and associated catchments.

Management Calendar

Key information: The source of the lower Liverpool Creek infestation may occur upstream from the currently known sites. The upper Liverpool Creek area is the target of a surveillance program.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

ACTION PLAN: Hygrophila *(Hygrophila costata)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act Hygrophila must not be given away, sold, or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016 Hygrophila may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In the prevention zone:

- Contact CCRC to report any suspect plants on 1300 763 903.
- You are responsible for knowing what you are buying online or at local markets. Ensure you don't unintentionally introduce Hygrophila to your property.
- Be responsible and do not dump garden pond or fish tank contents into waterways.

In the eradication zone:

- Remove and bag specimens from water features and contact CCRC to arrange disposal on 1300 763 903.
- Ensure soil or vegetation from known infestations is not moved from the site unless it is disposed of in accordance with the regulation.
- If you have Hygrophila in your possession do not share contaminated material including aquatic plants and do not dump garden pond or fish tank contents into waterways.
- You are responsible for knowing what you are selling online or at local markets. Ensure you don't spread Hygrophila.
- Contact Cassowary Coast Regional Council on 1300 763 903 to report any suspect plants.

Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Koster's curse *(Miconia crenata syn. Clidemia hirta)*

Details

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

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

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

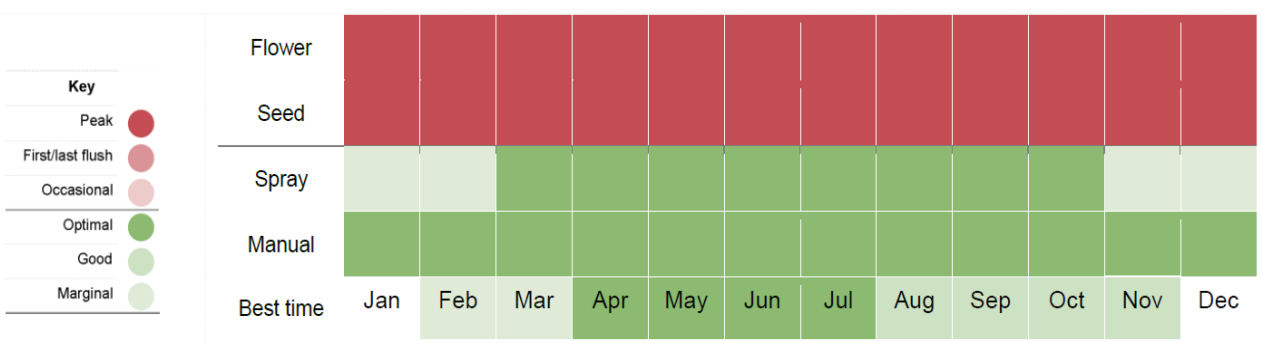
Key projects: An impact reduction program is ongoing for the only known infestation, located within Wooroonooran National Park.

Management Calendar

Key information: This plant has the potential to spread rapidly over many areas of Australia where conditions are suitable due to its massive seed production and persistence of seeds to remain viable for at least 8 years. Any suspected sightings must be reported to Biosecurity Queensland on 13 25 23 within 24 hours.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Koster's curse *(Miconia crenata syn. Clidemia hirta)*

Biosecurity Requirements and Legal Obligations

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

Obligations relating to restricted matter
Under the Act, Koster's curse must not be given away, sold or released into the environment. Penalties apply. Under the Biosecurity Regulation, Koster's curse may be disposed of by:
• Deep burial
• Transporting to a waste facility securely (contact CCRC on 1300 763 903)
• Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In prevention zone:
• Minimise the risk of spread by ensuring potted plants, machinery, vehicles, materials and produce are free from seed contamination and are from a weed-free source.
• Report any suspected sightings to CCRC on 1300 763 903

In the eradication zone:
• Ensure that the movement of materials, soil, machinery, vehicles and produce from your property do not add to the risk of spread.
• Follow any instructions on signage in the vicinity of the known infestation in the Misty Mountains.
• Keep to formed roads and trails.

Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Kudzu *(Pueraria lobata)*

Details

Description: A perennial scrambling vine with alternate leaves. The large leaves are a lobed shape and form in groups of three (like a dinosaur footprint). It produces purple pea-like flowers and spreads rapidly when nodes come into contact with soil. Can be deciduous around late winter to early spring.

Distribution: All currently known infestations occur in the Johnstone River catchment.

Impacts: A fast-growing vine which has the potential to encroach into thick rainforest and riparian zones, smothering native vegetation. Kudzu poses a significant threat of smothering agricultural crops and infrastructure, growing to over 30 metres in height. Seed pods can be spread by sticking to clothing and the fur of animals.

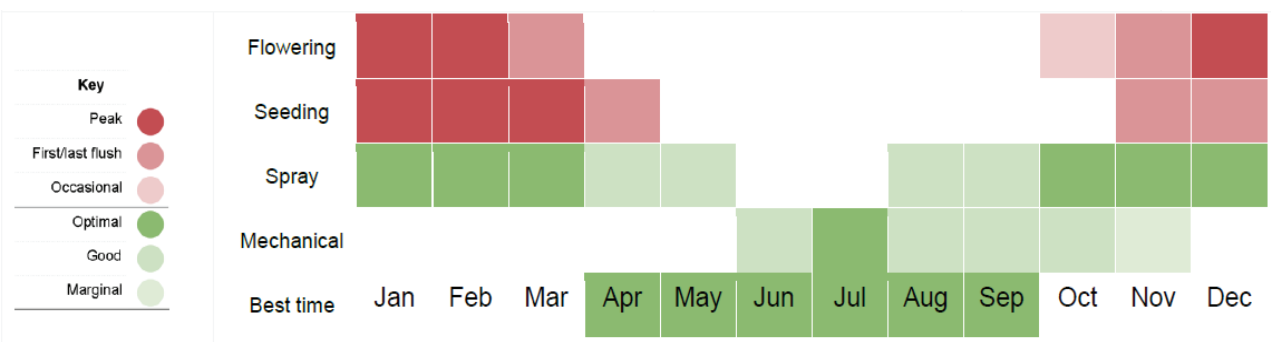
Key projects: Long term projects continue along the Johnstone River with known sites currently being managed and monitored.

Management Calendar

Control

Spread

Key information: A smothering vine with significant invasive potential. If you are unsure about plants that fit the above description, please advise CCRC's Biosecurity Officer on 1300 763 903.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Kudzu *(Pueraria lobata)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act Kudzu must not be given away, sold or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, Kudzu may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

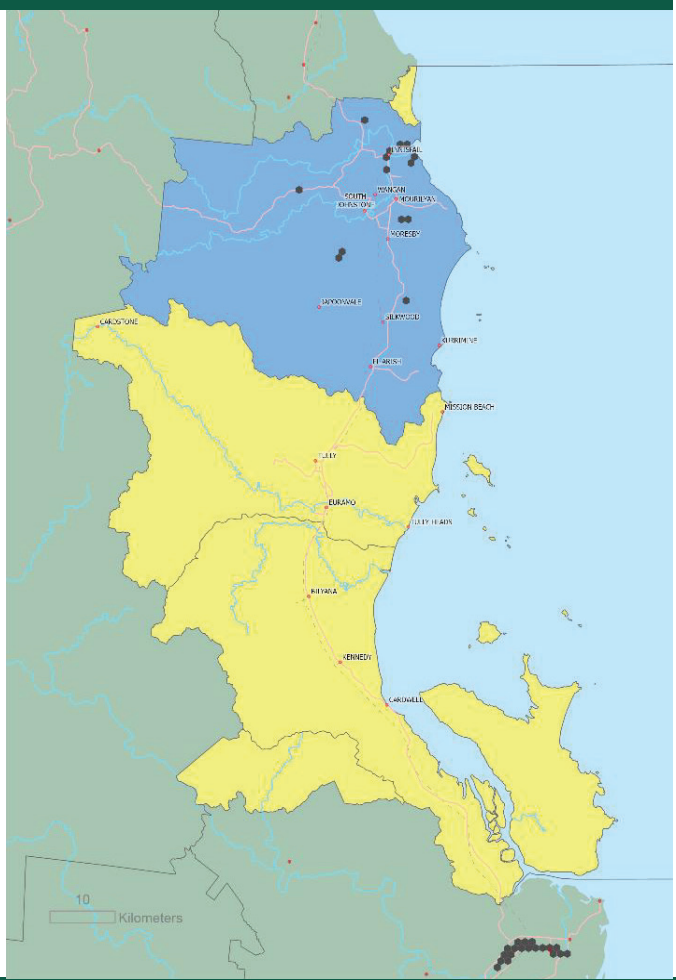
Reasonable and Practical Measures

In the prevention zone:

- Report any suspected outbreaks or detections to CCRC on 1300 763 903.
- Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.
- Check with Council's biosecurity officer on 1300 763 903 prior to disposal at a waste transfer station.

In the containment zone:

- Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Identify high value assets and protect them from impacts where possible.
- Treat isolated infestations with high risk of spread.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Leucaena spp. *(Leucaena leucocephala* and hybrids*)*

Details

Description: A legume which grows as a shrub or small tree to 6m with dull green bipinnate leaves and round cream/yellow flowers on short stalks. Seeds are scattered from flattened pods 15 cm long which split when ripe. Leucaena is variable and includes hybrids and derivatives of *Leucaena leucocephala subsp. glabrata, Leucaena pallida* and others.

Distribution: Leucaena has a scattered distribution on road corridors, foreshores and townships across the region.

Impacts: Leucaena is an invasive small tree or shrub which can colonise disturbed ground and areas around infrastructure such as roadside as well as natural areas along creek lines, coastal reserves and open areas. Certain varieties are used as fodder in the grazing industry which can be invasive if not managed.

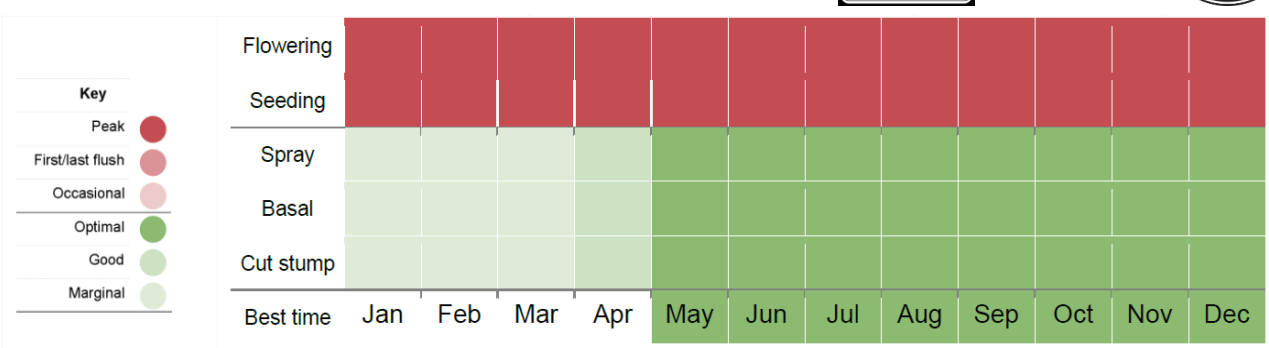
Key projects: The use of leucaena for green fodder for cattle is guided by a voluntary industry code of practice, however, the negative impacts on the environment are considered to outweigh the benefit it may offer as a stock feed, particularly where alternatives exist.

Management Calendar

Key information: This is a declared local pest species under the CCRC's Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

ACTION PLAN: Leucaena spp. *(Leucaena leucocephala* and hybrids*)*

Biosecurity Requirements and Legal Obligations

This is a declared local pest species under Subordinate Local Law No 3 (Community and Environmental Management) 2022. It must not be sold, supplied, propagated or harboured. Penalties apply.

Local laws apply

- Must not breed
- Must not propagate
- Must not introduce or spread
- Must not sell or supply

General Biosecurity Obligation

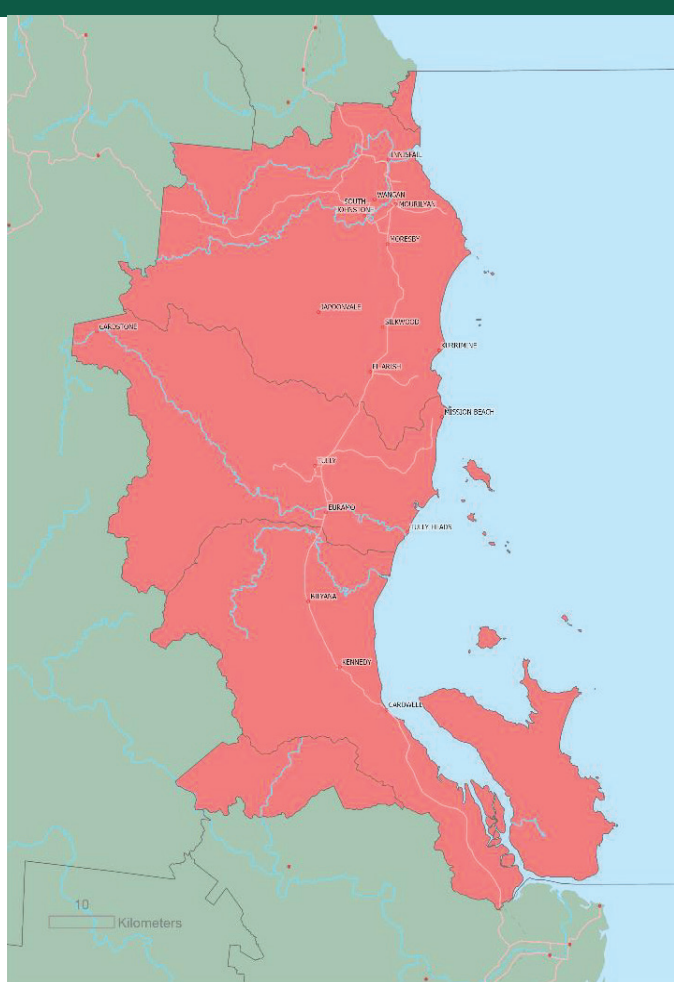
The Act requires everyone to take all reasonable and practical measures to minimise the biosecurity risks associated with Leucaena under their control.

Reasonable and Practical Measures

In the asset protection zone:

• For mechanical control, the use of a cutter bar operating 30 cm below ground can result in up to 100% mortality, however, follow up treatments will almost certainly be required as seeds stay viable for up to 10 years in the soil.

• Follow the voluntary industry code of practice.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Limnocharis *(Limnocharis flava)*

Details

Description: Limnocharis is a perennial aquatic weed which can grow to a height of 1 metre. It has pale green leaves and small yellow cup-shaped flowers. Stems of leaves are triangular in cross-section.

Distribution: Currently active infestations in Feluga, Vasa Views, Carmoo and Maria Creeks. Other sites in Tully and Mission Beach are being in monitored and are subject to eradication.

Impacts: A major weed in many countries. This perennial aquatic plant will colonise shallow wetlands and margins of deeper waterways. It competes with native plants, blocks drains and displaces native flora and fauna.

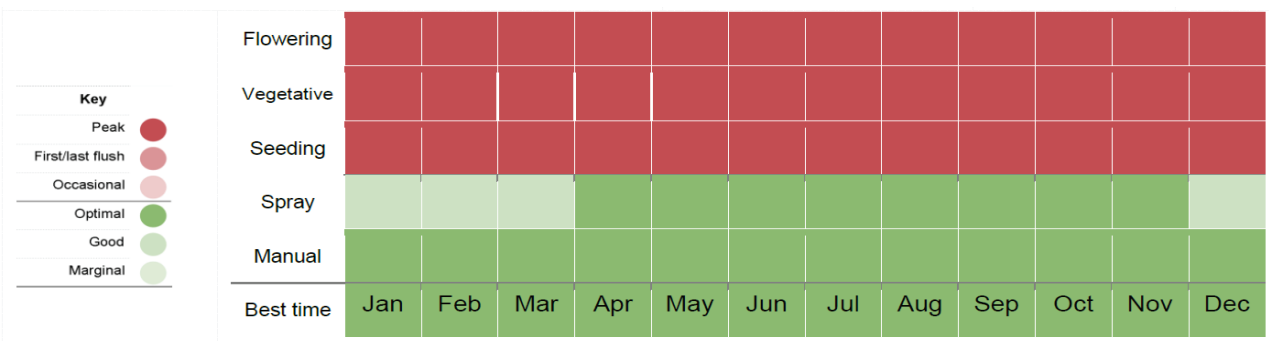
Key projects: All known infestations within the Cassowary Coast are currently the target of the cost-shared National Tropical Weeds Eradication Program.

Management Calendar

Key information: This is a serious agricultural and biodiversity threat to northern Australia. It has been found in backyard ponds, ornamental lakes, farm drains and natural waterways. It must not be given away, sold or released into the environment. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Limnocharis *(Limnocharis flava)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 2 - MUST BE REPORTED
Category 3 - DO NOT DISTRIBUTE
Category 4 - DO NOT MOVE
Category 5 - DO NOT POSSESS OR KEEP

Obligations relating to restricted matter
Under the Act, Limnocharis must not be given away, sold, or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016, Limnocharis may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In the prevention zone:
- Ensure wetland and pond plants are sourced from a reliable supplier and are from a weed-free area.
- Do not dump wetland, aquarium plants or fish into waterways.
- Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

In the eradication zone:
- Do not move soils and plants from infested sites.
- Ensure machinery and other plant equipment operating in the vicinity of the known infestation is operating under strict weed hygiene protocols, developed in consultation with Biosecurity Queensland.
- Landholders are required to report suspected infestations immediately to Biosecurity Queensland on 13 25 23.

Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Mexican bean tree (*Cecropia spp.*)

Details

Description: Rapidly growing tree to 20m. Hollow stems, large, deeply lobed leaves with white undersides. Distinctive leaf scars on trunk and often with stilt roots. The female plant produces long finger-like spikes.

Distribution: Restricted to isolated outbreaks or single plants in the El Arish, Maria Creek and Mission Beach areas. Larger infestations at Vasa Views and Walter Lever Estate. Recently eradicated from Innisfail riverside.

Impacts: A rapid growing rainforest pioneer which can invade and dominate rainforests and urban gardens. Cecropia is spread by birds and bats and so can be moved long distances into adjoining landscapes and forests.

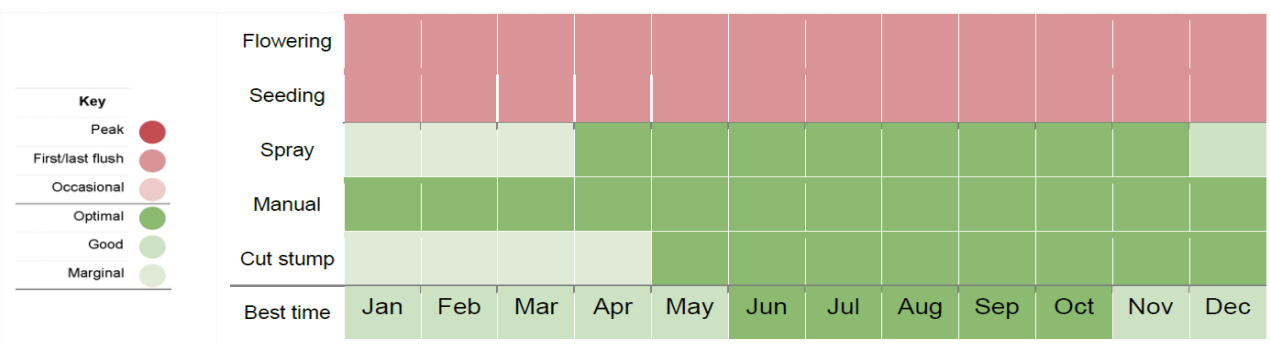
Key projects: All known locations are the target of a regional eradication program led by Biosecurity Queensland. All suspected sightings of this plant should be reported to Biosecurity Queensland on 13 25 23.

Management Calendar

Key information: The large distinctive leaves are similar in shape to native umbrella tree leaves (Schefflera), but Mexican bean tree leaves are not uniform in width and are a lighter colour underneath.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Mexican bean tree (*Cecropia spp.*)

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 2 - MUST BE REPORTED
Category 3 - DO NOT DISTRIBUTE
Category 4 - DO NOT MOVE
Category 5 - DO NOT POSSESS OR KEEP

Obligations relating to restricted matter
Under the Biosecurity Act 2014 Mexican bean tree must not be given away, sold or released into the environment. Penalties apply. Under Biosecurity Regulation 2016, Mexican bean tree may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In the prevention zone:
- It is an offence under the Biosecurity Act 2014 to sell, distribute or give away Cecropia plants or seeds.
- If moving to a new property with a history of nursery or fruit tree production, be on the lookout for Cecropia plants.
- All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23 within 24 hours.

In the eradication zone:
- All known locations are the target of a regional eradication program led by Biosecurity Queensland. All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23 within 24 hours.
- If you have an active infestation on your property you can assist the survey and control team by maintaining property access points and tracks, and ensuring you do not move soil or plant material from the infestation area.
- For more information refer to Biosecurity Queensland's Invasive Plants and Animals Biosecurity Program.

Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Miconia *(Miconia calvescens)*

Details

Description: A small tree (up to 15 m) with large leaves up to 70 cm long. The underside of the leaves is a distinct, deep iridescent purple. Miconia produces clusters of small white flowers followed by red/purple berries.

Distribution: Current incursions occur in the vicinity of domestic gardens in the Johnstone, Liverpool, Maria, Mission Beach and Banyan catchments. It is readily spread by birds into neighbouring rainforest.

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

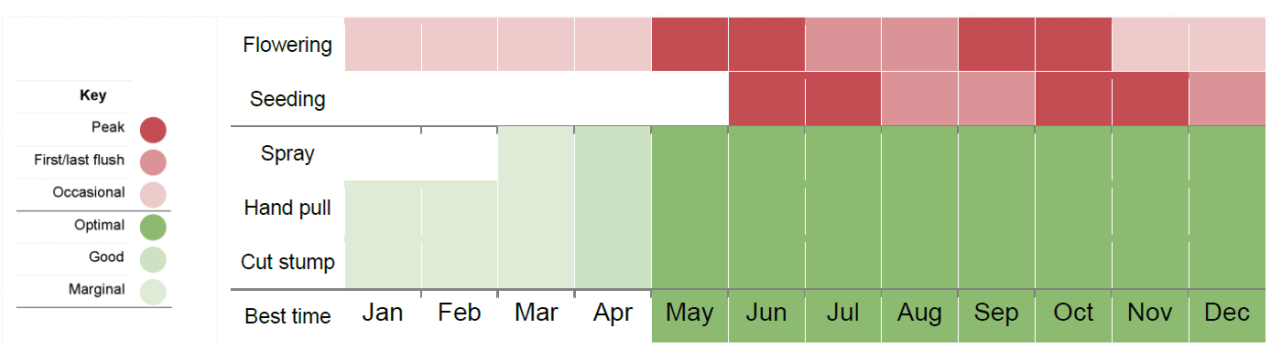
Key projects: Miconia is a target of the cost-shared National Tropical Weeds Eradication Program led by Biosecurity Queensland. All plants should be reported to Biosecurity Queensland immediately on 13 25 23.

Management Calendar

Key information: This is one of our region's most serious weed threats. Please report anything that looks like it could be this plant to Biosecurity Queensland immediately on 13 25 23. A false alarm is much better than a missed incursion.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Miconia *(Miconia calvescens)*

Biosecurity Requirements and Legal Obligations

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

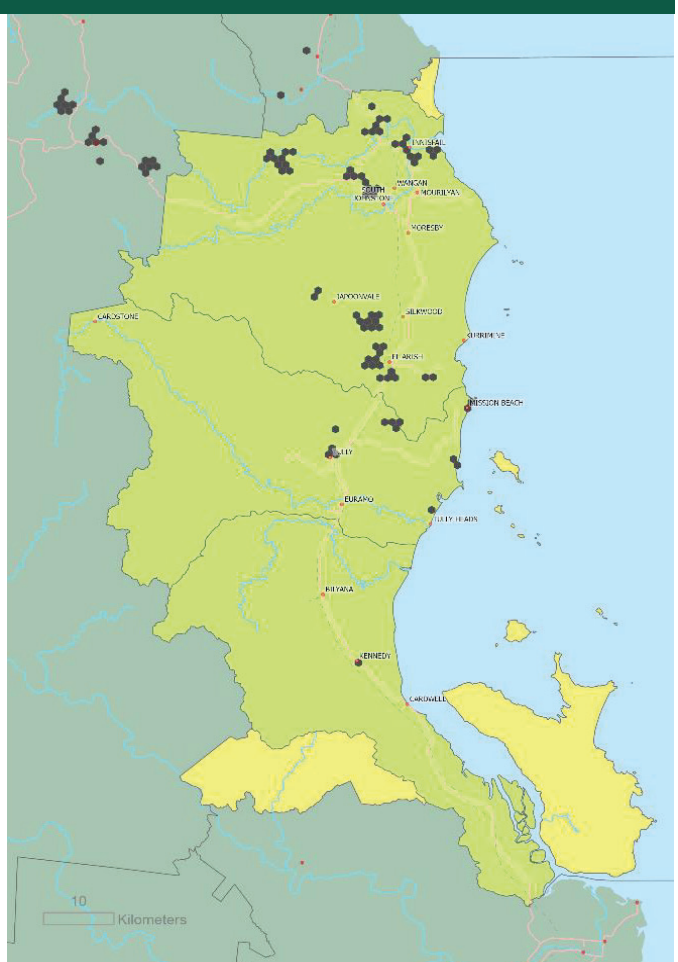
Obligations relating to restricted matter
Under the Act, Miconia must not be given away, sold or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, Miconia may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

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

In the eradication zone:
- If you have an active infestation on your property, you can assist the survey and control team by maintaining property access and ensuring you do not move soil or plant material from the infestation area.
- Landholders are required to immediately report suspected infestations to Biosecurity Queensland on 13 25 23. Refer to the biosecurity programs of the National Tropical Weed Eradication Program for more information.

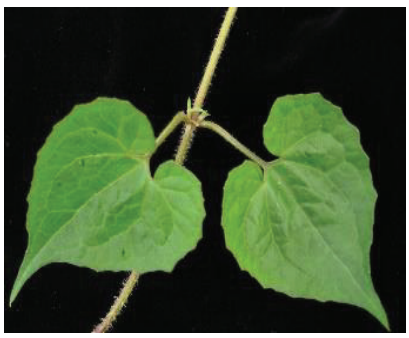


Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Mikania vine *(Mikania micrantha)*

Details



Description: A scrambling and twining herbaceous climber. Known as 'mile-a-minute' because of its rapid growth rate. Mikania vine has distinctive opposite leaves in pairs. It produces masses of white flowers which are followed by wind-borne seeds.

Distribution: Isolated infestations exist in the Mission Beach and Bingil Bay area.

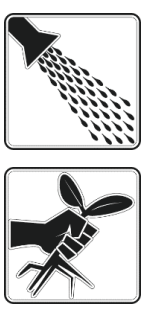
Impacts: Mikania vine is a rapid-growing vine which is a major environmental weed and a pest in plantation crops in tropical areas around the Asia-Pacific. It poses a significant threat to banana and sugar plantations as well as native forests and the Wet Tropics World Heritage Area.

Key projects: All known infestations within the Cassowary Coast are currently under an eradication program as part of the cost-shared National Tropical Weeds Eradication Program. All suspected plants should be reported to Biosecurity Queensland immediately on 13 25 23.

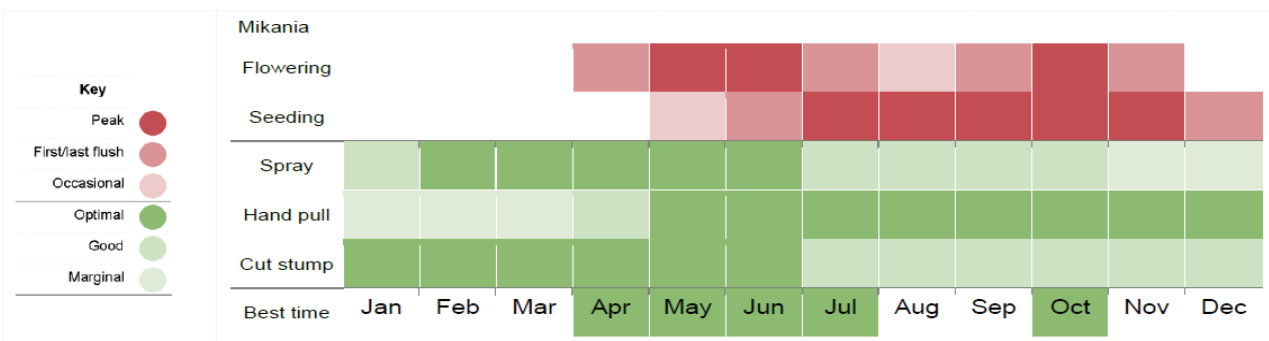
Management Calendar

Key information: This is another of our most serious weeds that needs to be eradicated before it becomes too difficult to manage. If in any doubt about a plant that fits the description provided, please report immediately to Biosecurity Queensland on 13 25 23. This is required by law.

Control



Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Mikania vine *(Mikania micrantha)*

Biosecurity Requirements and Legal Obligations

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

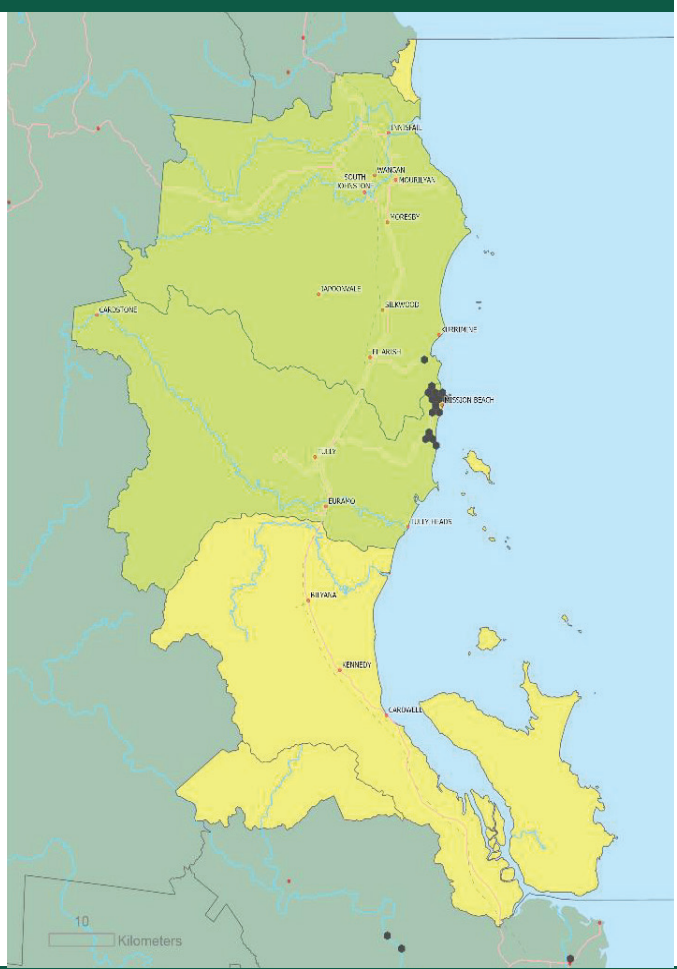
Obligations relating to restricted matter
Under the Act, Mikania vine must not be given away, sold or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, Mikania vine may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

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

In the eradication zone:
- All persons are required to report plants they think may be Mikania vine within 24 hours to Biosecurity Queensland on 13 25 23.
- If you have a known infestation on your property, you can assist the survey and control team by maintaining property access points and tracks.
- Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible, until consulting Biosecurity Queensland on 13 25 23.
- If your property has a known infestation, you are responsible for ensuring that materials or products leaving your property are free from Mikania vine seed or plant material.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Olive Hymenachne *(Hymenachne amplexicaulis)*

Details

Description: A robust, upright perennial aquatic grass growing to 1-2 metres with distinctive stem-clasping leaves. Olive hymenachne produces a long cylindrical seed head.

Distribution: A major weed of all river systems and connected wetlands in the lower Tully-Murray and Johnstone catchments.

Impacts: Hymenachne grows rapidly and blocks drainage systems in cane farms. Rapidly invades and outcompetes native plants in wetlands and waterways. Prevents fish passage and breeding opportunity for key species like Barramundi.

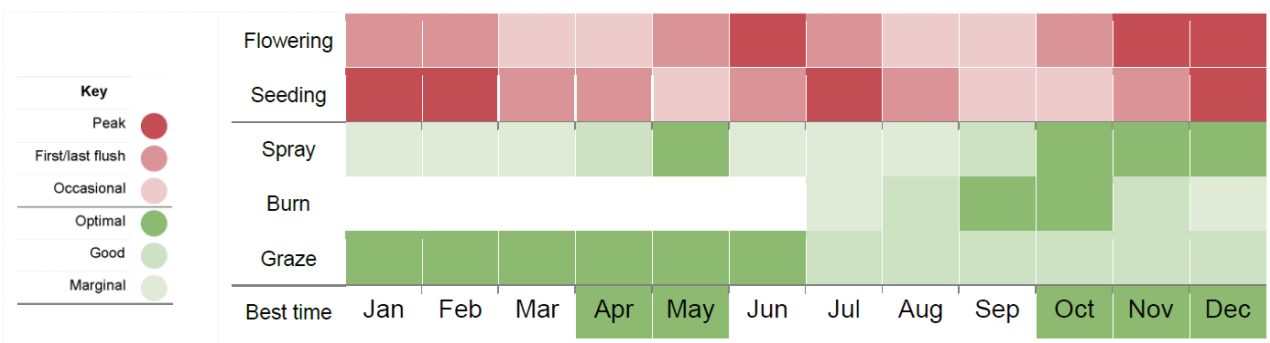
Key projects: Targeted eradication projects in outlier infestations. Landholder led impact reduction programs within cane drainage and wetlands.

Management Calendar

Control

Spread

Key information:
Previously used as a ponded pasture grass, this plant has escaped cultivation and is now listed as a Weed of National Significance.
It threatens large areas of northern Australia, including national parks, sugar cane plantations and water reservoirs. It is a difficult weed to control once established so monitoring 'at-risk' areas, combined with the ability to eradicate small infestations, is crucial to success of preventing introduction. Herbicide treatments require multiple treatments in the first year, then consistent follow up in the following years.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Olive Hymenachne *(Hymenachne amplexicaulis)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

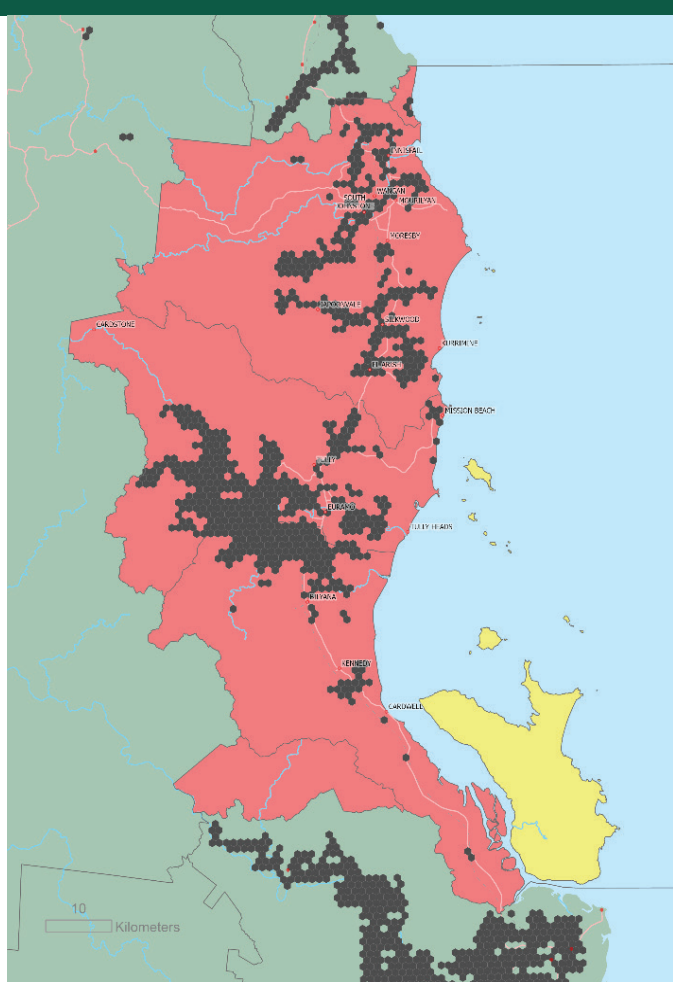
Obligations relating to restricted matter
Under the Act Olive hymenachne must not be given away, sold or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016 Olive hymenachne may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In the prevention zone:
- Wherever practical ensure agricultural and raw materials are sourced from a reliable supplier and are from a hymenachne-free area.

In the asset protection zone:
- Identify and protect key assets such as fish passage and breeding areas, drainage infrastructure and important wetlands.
- Undertake best practice control of infestations to protect high value areas.
- Spell any stock in a holding paddock for at least 7 days before moving from known infestation areas.
- Ensure machinery is free from seeds and plant material when working in or near waterways and drains.
- Drains, wetlands and waterways should be monitored annually to prevent spread to adjoining areas and to manage risk of spread from your property, where practical to do so.
- You are responsible for ensuring materials or products leaving your property are free from hymenachne seeds or plant material.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Pond apple *(Annona glabra)*

Details

Description: A semi-deciduous shrub or tree reaching around 15m but typically 3-6 m. Leaves are lighter below than above and have a green apple scent when crushed. The large fruit is similar to a custard apple and is filled with floating seeds similar in size and shape to a pumpkin seed.

Distribution: Pond apple seeds spread on waterways and ocean currents. It is widespread at elevations below 20m from the Murray River to Eubenangee. The fruits are eaten by pigs and cassowaries which may also result in spread between water bodies.

Impacts: Pond apple invades a wide range of wetlands and waterways. It forms dense thickets that exclude most native plants, preventing regeneration. It also modifies natural hydrology and chokes drains.

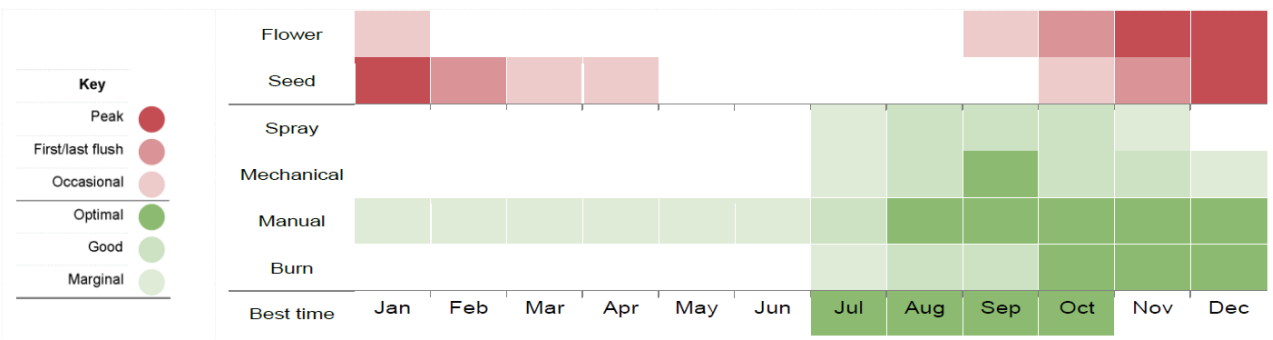
Key projects: Long term projects are underway working from upper to lower catchments in the Eubenangee, Liverpool, and Mission Beach/Bingil Bay areas. Ongoing eradication project in Maria Creek NP.

Management Calendar

Key information: This weed is best controlled through cooperation between neighbouring property owners. As a minimum, control these plants on your property and advise your neighbour of what you have done, recommending they do the same.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast Regional Council

ACTION PLAN: Pond apple *(Annona glabra)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

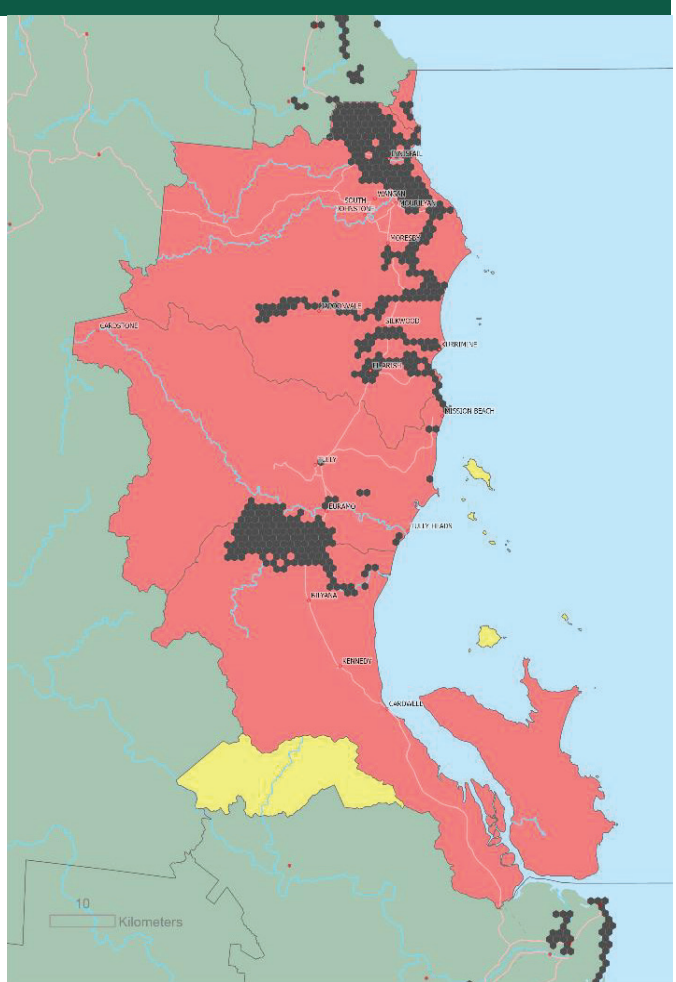
Obligations relating to restricted matter
Under the Act, pond apple must not be given away, sold, or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016, pond apple may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

Reasonable and Practical Measures

In the prevention zone:
- It is an offence under the Biosecurity Act 2014 to move, share, give away or sell this plant.
- Contact CCRC on 1300 763 903 to report any suspect plants

In the asset protection zone:
- Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations.
- Maintain weed free areas.
- Identify high value assets and protect them from impacts where possible.
- Treat isolated infestations with high risk of spread.
- Control plants in creeks and drains.
- Assist management programs by providing and maintaining with access to waterways and wetlands.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Salvinia *(Salvinia molesta)*

Details

Description: A floating fern with small, coarsely hairy oval leaves which repel water. As the plant matures it turns from bright green to brown and bunches up into tight rafts. Salvinia reproduces by rapidly dividing into smaller plants.

Distribution: It is commonly detected in water features, garden ponds and aquariums. Unmapped infestation in the upper Ninds Creek catchment area, between Mourilyan and Etty Bay.

Impacts: Salvinia floats on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. The thick mat of vegetation shades out any submerged plant life and limits oxygen exchange, making the water unsuitable for fish and other animals.

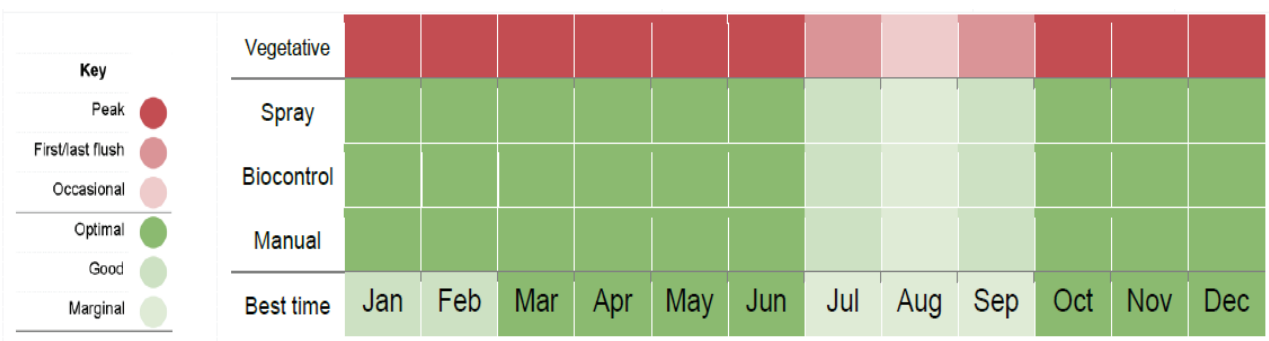
Key projects: Suspected sightings of Salvinia in the environment should be reported to CCRC's Biosecurity officer on 1300 763 903.

Management Calendar

Key information: Waterways are regularly monitored for Salvinia and other aquatic weeds. A biological control agent, Cyrtobagous salviniae (salvinia weevil) has been released and provides some degree of control over this weed. Salvinia molesta is a category 3 restricted invasive plant under the Biosecurity Act 2014. It must not be given away, sold or released into the environment.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Salvinia *(Salvinia molesta)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT MOVE OR DISTRIBUTE

Obligations relating to restricted matter
Under the Act, Salvinia must not be given away, sold, or released into the environment. Penalties apply. Under the Biosecurity Regulation 2016, Salvinia may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

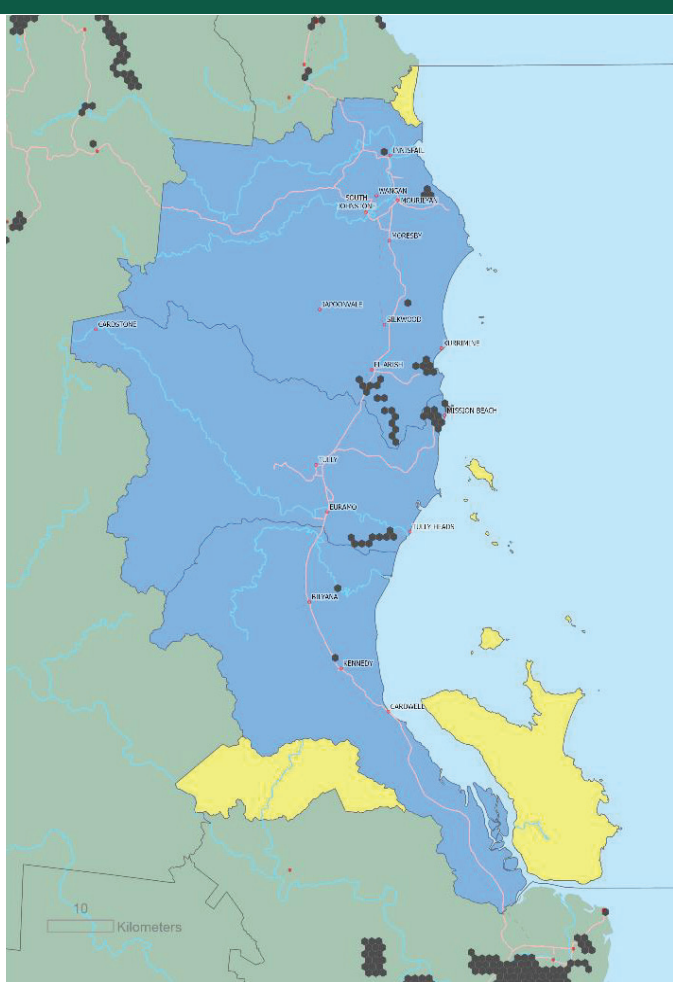
Reasonable and Practical Measures

In the prevention zone:

- It is an offence under the Biosecurity Act to move, share, give away or sell this plant.
- Ensure wetland and pond plants are sourced from a reliable supplier and are from a weed free area.
- Do not dump aquarium plants or fish into waterways.
- Contact CCRC on 1300 763 903 to report any suspect plants.

In the containment zone:

- Maintain weed free areas.
- Ensure best practice treatment of water bodies by reporting new infestations outside of known areas.
- Treat isolated infestations with a high risk of spread.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Siam weed *(Chromolaena odorata)*

Details

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

Distribution: Widespread in the Tully and Johnstone catchments. Less common in the Murray and Kennedy regions.

Impacts: Siam weed can form dense thickets and outcompete native species and pasture in both disturbed and undisturbed sites. Prefers richer soils in alluvial and riparian zones but will grow in most areas of the wet and dry tropics.

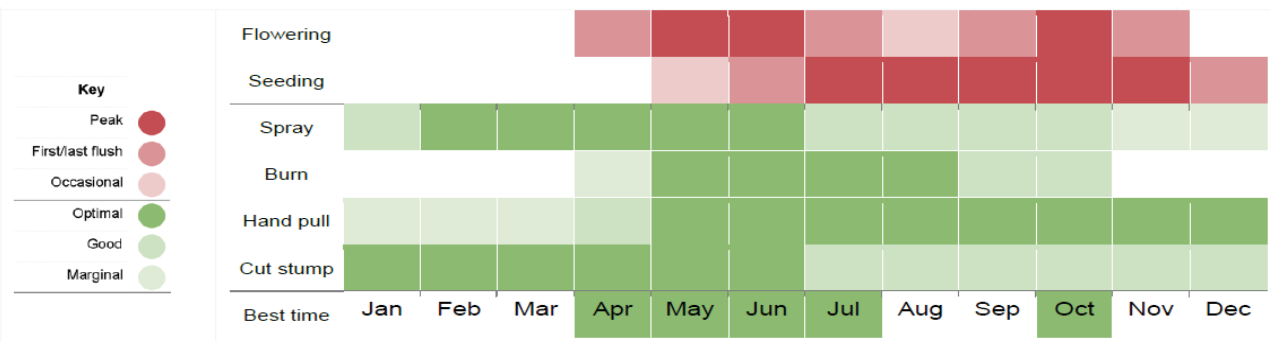
Key projects: Council undertakes annual roadside control of Siam weed to help protect residents, neighbouring council areas, and those further afield, from Siam weed. See also Key Information below. QPWS has a strategic control project happening in the North Johnstone Gorge area of Wooroonooran NP.

Management Calendar

Key information: A biological control agent, the Siam gall fly, has been released across the Cassowary Coast to assist with controlling this plant. It serves by stunting the plant's growth and reducing its flowering and seeding through the formation of galls on growing stems. Check for galls if you have this weed on your property and if none can be found, contact the CCRC's Biosecurity officer on 1300 763 903 to discuss your options.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast Regional Council

ACTION PLAN: Siam weed *(Chromolaena odorata)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act, Siam weed must not be given away, sold or released into the environment. Penalties apply.
Under Biosecurity Regulation 2016, Siam weed may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

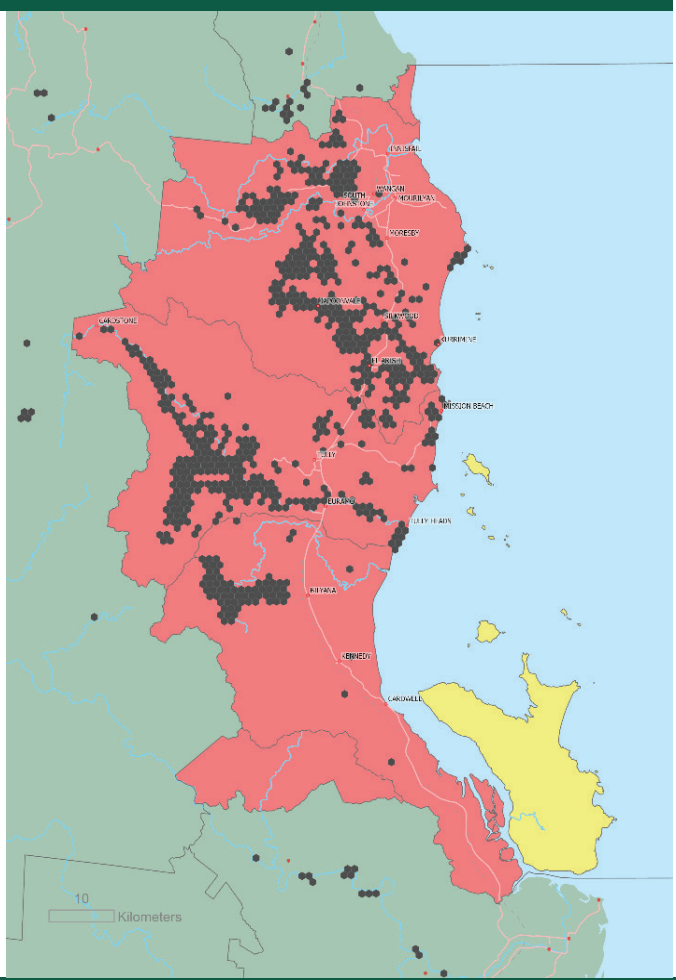
Reasonable and Practical Measures

In prevention zone:

- Wherever practical ensure agricultural and raw materials are sourced from a reliable supplier and are from a Siam weed-free area.

In the asset protection zone:

- Undertake control works on known infestations in April prior to peak flowering period in May-June.
- Follow up control works during May-June to ensure any missed plants are controlled before they can produce seed.
- Do not disturb or remove soil and plant material from a known infestation location, even if no plants are visible.
- You are responsible for ensuring machinery and vehicles avoid known infestation areas or are appropriately washed down prior to leaving your property.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Thunbergia *(Thunbergia grandiflora)*

Details

Description: A rapidly growing vine which forms significant underground tubers. Thunbergia climbs and smothers native vegetation. The separate species of T. laurifolia and T. grandiflora have been merged into a single species. The lavender-blue trumpet shaped flowers are identical, but the leaves may vary from a choko-like shape to an oval shape with a narrow-pointed tip. Both form large underground tubers.

Distribution: Several isolated outbreaks within the Cassowary Coast region including South Johnstone and East Innisfail.

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

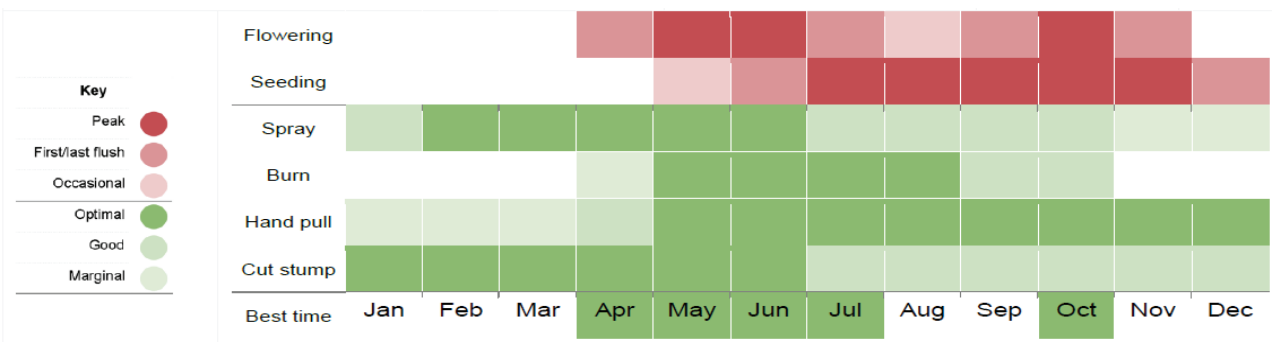
Key projects: All known infestations are targeted for eradication.

Management Calendar

Key information: Resistant to many herbicides, this is one of Council's highest priority weeds as it has regrown from previous eradication attempts and threatens to colonise large areas if not managed appropriately. Council assists with the facilitation of research aimed to learn more about the growth habits of this plant and ascertain the most effective control mechanisms. Property owners are responsible for the management of this weed on their land.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Thunbergia *(Thunbergia grandiflora)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act, Thunbergia vine must not be given away, sold, or released into the environment. Penalties apply.
Under the Biosecurity Regulation 2016, Thunbergia vine may be disposed of by:
- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed.

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

Reasonable and Practical Measures

In the prevention zone:
- Contact CCRC on 1300 763 903 to report any suspect plants.

In the eradication zone:
- Landowners or occupiers can assist by maintaining easy access to infestations and by assisting with control activities.
- If your property has an active infestation, make sure your green waste does not contain Thunbergia and is disposed of in accordance with the regulation.
- You are required to control all identified Thunbergia vine plants on your property where practical to do so.
- You are responsible to ensure materials or products leaving your property are free from Thunbergia vine, seed or plant material.

Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Water hyacinth *(Eichhornia crassipes)*

Details

Description: A free-floating aquatic herb with glossy, spoon shaped leaves and distinctive purple/lilac flowers. Water hyacinth forms dense blankets over waterways and wetlands. A similar native species occurs but can be distinguished by its yellow flowers and spear-shaped leaves.

Distribution: Isolated to two occurrences in the Tully-Murray catchments and potentially in private ponds/water features. Water hyacinth is widespread in the Lower Herbert and Russell River catchments which may provide a means of re-introduction from outside the Cassowary Coast region.

Impacts: It floats on still or slow-moving water and can grow rapidly to cover the entire water surface with a thick mat of vegetation. This shades out any submerged plant life and impedes oxygen exchange, making the water unsuitable for fish and other animals. It also limits access for recreational pursuits.

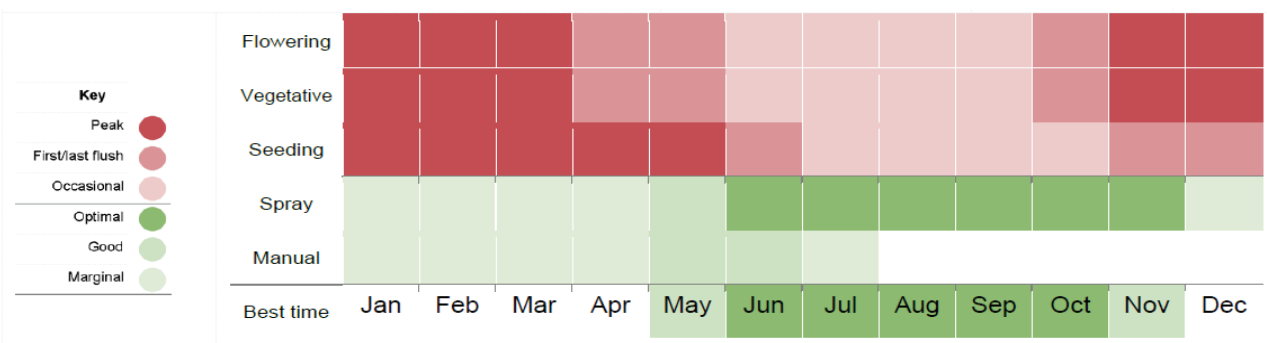
Key projects: Isolated outbreaks within the Cassowary Coast region are targeted for eradication, including a recent detection at Wongaling Beach. Successfully eradicated from Maria Creek NP.

Management Calendar

Key information: This species is considered one of the most invasive plants in the world. Other species of *Eichhornia* have been designated as prohibited imports to Australia.

Control

Spread



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

ACTION PLAN: Water hyacinth *(Eichhornia crassipes)*

Biosecurity Requirements and Legal Obligations

Regulated Biosecurity Matter
Category 3 – DO NOT DISTRIBUTE

Obligations relating to restricted matter
Under the Act Water hyacinth must not be given away, sold or released into the environment. Penalties apply. Under Biosecurity Regulation 2016 it may be disposed of by:

- Deep burial
- Transporting to a waste facility securely (contact CCRC on 1300 763 903)
- Sealing the matter in plastic and leaving it in the sun until any vegetative material has fully decomposed

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

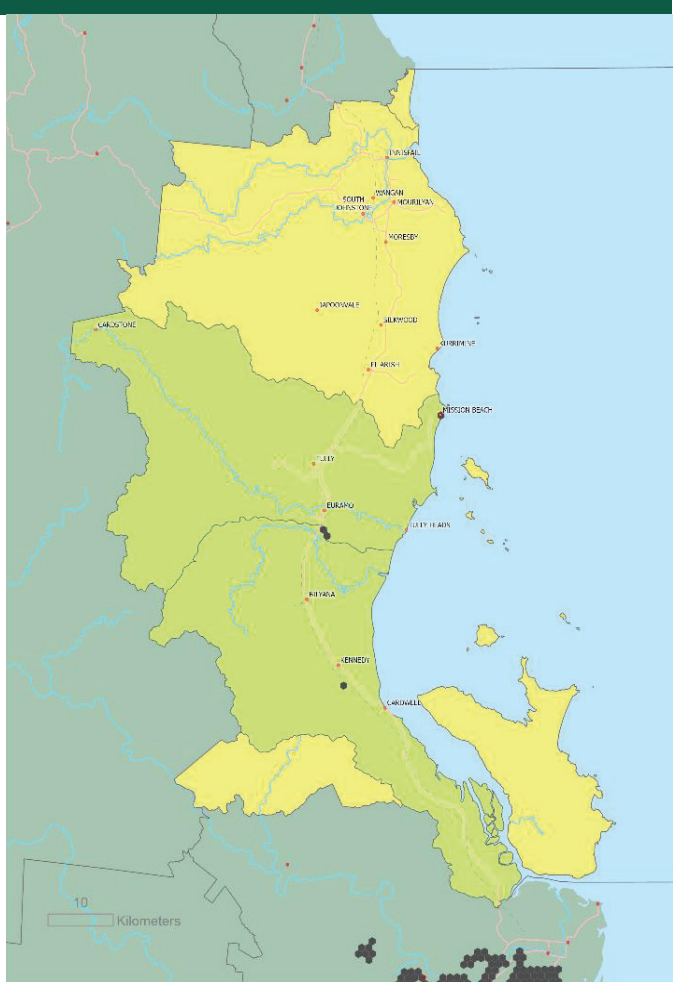
Reasonable and Practical Measures

In the prevention zone:

- Contact CCRC on 1300 763 903 to report any suspect plants.
- You are responsible for knowing what you are buying online or at local markets to ensure you don't unintentionally introduce Water hyacinth from a contaminated source.

In the eradication zone:

- Remove and bag specimens from water features and contact CCRC to arrange disposal on 1300 763 903.
- Ensure soil or vegetation from known infestations is not moved from the site unless it is disposed of in accordance with the regulation.
- If you have Water hyacinth in your possession, do not share material including aquatic plants and do not dump garden pond or fish tank contents into waterways.
- You are responsible for knowing what you are selling online or at local markets to ensure you don't unintentionally spread Water hyacinth.



Cassowary Coast Biosecurity Plan 2025-2029

Cassowary Coast REGIONAL COUNCIL

APPENDIX TWO

PESTS DECLARED UNDER THE BIOSECURITY ACT (2014) WHICH ARE KNOWN TO BE PRESENT IN THE CCRC LOCAL GOVERNMENT AREA OR ALERT SPECIES (I.E. NOT PRESENT BUT NEARBY AND SUITABLE HABITAT EXISTS HERE)

RESTRICTED MATTER CATEGORY 2,3,4,5	*Cecropia spp.* Mikania vine *(Mikania micrantha)* Miconia *(Miconia calvescens)* Limnocharis *(Limnocharis flava)* Koster's curse *(Miconia crenata)* Madras thorn *(Pithecellobium dulce)*
ALERT SPECIES (NOT PRESENT) RESTRICTED MATTER CATEGORY 2,3,4,5	*Mimosa pigra* Neptunia/Water mimosa *(Neptunia oleracea)*
RESTRICTED MATTER CATEGORY 3	Siam Weed *(Chromolaena odorata)* Cabomba *(Cabomba caroliniana)* (WONS*) Giant sensitive plant *(Mimosa diplotricha)* Hymenachne and hybrids *(Hymenachne amplexicaulis)* (WONS) Kudzu *(Pueraria montana)* Parthenium *(Parthenium hysterophorus)* (WONS) Pond Apple *(Annona glabra)* (WONS) Prickly Acacia *(Vachellia nilotica)* (WONS) Prickly Pear *(Opuntia spp.)* Giant Rat's tails grass *(Sporobolus pyramidalis and S. natalensis)* Salvinia *(Salvinia molesta)* (WONS) Sicklepod *(Senna obtusifolia)* Thunbergia *(Thunbergia grandiflora)* Tobacco weed *(Elephantopus mollis)* Water lettuce *(Pistia stratiotes)* Water hyacinth *(Eichhornia crassipes)* *Thunbergia laurifolia* *Hygrophylla costata* Singapore Daisy *(Sphagneticola trilobata)* African Tulip (*Spathodea campanulata)* Asparagus fern *(Asparagus aethiopicus)* Harungana *(Harungana madagascariensis)* Oleander *(Nerium oleander)* Lantana *(Lantana camara)* (WONS) Camphor laurel *(Cinnamomum camphora)* Mother of Millions *(Bryophyllum spp)* * WONS = Weeds of National Significance

KNOWN ENVIRONMENTAL WEEDS (NON-DECLARED) Although not declared, these plants are known to spread into our local environments and waterways.	Alligator weed *(Alternanthera philoxeroides)* Fire weed *(Senecio madagascariensis)* Gamba grass *(Andropogon gayanus)* *Hiptage benghalensis* *Syngonium spp.* Pothos *(Epipremnum aureum)* Mock orange *(Murraya paniculata)* *Ardisia crenata* and *Ardisia.eliptica* Golden cane palm *(Dypsis lutescens)* Clumping fishtail palm *(Caryota mitis)* Duranta *(Duranta spp.)* Guinea grass *(Megathyrsus maximus var maximus)* Grader grass *(Themeda quadrivalvis)* Morning glories (inc *Ipomoea indica)* *Dioscorea alata* Red ivy/Aluminium plant *(Hemigraphis alternata)* Coconut *(Cocos nucifera)* Travellers palm *(Ravenala madagascariensis)* Papyrus *(Cyperus papyrus)* Yellow allamanda *(Allamanda cathartica)* Glow vine (*Saritaea magnifica)*
PEST ANIMALS	Feral pig (*Sus scrofa*) Wild dog (*Canis lupus familiaris* – not dingo *Canis lupis dingo*) Feral cat (*Felis catus*) Indian myna (*Acridotheres tristis*) Asian honey bee (*Apis cerana*) Electric ants (*Wasmannia auropunctata*) Chital deer (*Axis axis*) Feral red deer (*Cervus elaphus*) Feral rusa deer (*Cervus timorensis*) Rabbits (*Oryctolagus cuniculus*)
PEST ANIMALS ALERT SPECIES (NOT PRESENT)	Red-eared slider turtle *(Trachemys scripta elegans)* Asian green mussel *(Perna viridis)* Yellow crazy ants *(Anoplolepis gracilipes)*

APPENDIX 3

PESTS DECLARED UNDER THE SUBORDINATE LOCAL LAW NO 3 (COMMUNITY AND ENVIRONMENT) 2022

LOCALLY DECLARED	Hiptage *(Hiptage senagalhensis)* Brillantaisia *(Brillantaisia lamium)* Navua sedge *(Cyperus aromaticus)* Aleman grass *(Echinochloa polystachya)* Leucaena *(Leucaena spp.)* Bog moss/weed *(Mayaca fluviatilis)* Bamboo - running *(Phyllostachys spp* and *Bambusa spp)* Mother in law's tongue *(Sansevieria trifasciata)* Amazonian Frogbit *(Limnobium laevigatum)*

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