

# Cape York Peninsula Regional Biosecurity Plan 2016 – 2021



### ACKNOWLEDGMENTS

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Northern Peninsula Area Regional Council

Aurukun, Hopevale, Kowanyama Lockhart, Mapoon, Napranum, Pormpuraaw and Wujal Wujal Aboriginal Shire Councils

Weipa Town Authority

Rio Tinto (Alcan)

Biosecurity Queensland

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Department of Natural resources and Mines

Department of Agriculture and Water Resources

Far North Queensland Regional Organisation of Councils

Individual Cape York Peninsula Registered Native Title Body Corporates and Land Trusts

Cape York Weeds and Feral Animals Incorporated

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Please reference as: Cape York Natural Resource Management 2016, Cape York Peninsula Regional Biosecurity Plan 2016 -2021, Report prepared by the Cape York Natural Resource Management (Cape York NRM)

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## Interpreting the Plan

**Part One** of the Plan contains the Vision, the Plan Outcomes, Biosecurity Priorities, Implementation Arrangements, Implementation Plan and Monitoring, Evaluation and reporting Arrangements for biosecurity management in Cape York Peninsula for the next 5 years.

Part One takes the reader straight to the Plan Outcomes and priorities while the Implementation Plan outlines the strategies and associated actions to deliver 5 biosecurity outcomes for Cape York Peninsula's communities, economy and environment. It also provides a framework to measure progress over the 5-year life of the Plan.

**Part Two** of the Plan contains the information that supports the biosecurity priorities and implementation arrangements contained in Part One. This background information includes:

- the rationale for the new Plan,
- what's happened since the last Regional Pest Management Plan was developed,
- how the Plan has been developed,
- how the Plan aligns with legislation, biosecurity policies, strategies & guidelines, and
- principles for achieving best practice in biosecurity management.

This background information is useful in understanding the context in which the plan has been developed and how the outcomes, biosecurity priorities and implementation arrangements and implementation plan strategies and actions have been derived.

## PART ONE

### 1. Introduction

Cape York Natural Resource Management (Cape York NRM), Cook Shire Council (CSC), Weipa Town Authority, Wujal Wujal, Hopevale, Lockhart, Mapoon, Napranum, Aurukun, Pormpuraaw and Kowanyama Aboriginal Shire Councils and the Northern Peninsula Area Regional Council (NPARC) have collaboratively developed this Regional Biosecurity Plan (the Plan) for Cape York Peninsula. The development of the Plan has been the culmination of extensive consultation with Cape York Peninsula communities, Traditional Owners and all levels of government.

The Plan's development is in response to the significant risks to Cape York Peninsula's economic, environmental, social and cultural assets posed by existing and potential weeds and pest animals from within and outside Australia, and in recognition that the most practical and effective way to manage a number of these risks is at the regional level through coordinated effort. It is acknowledged that biosecurity also includes pathogens and diseases but this Plan does not address these biosecurity issues.

Biosecurity (weeds and pest animals) issues do not exist in isolation from broader natural resource management considerations. Cape York NRM has progressed the development of a revised Cape York NRM Plan and Investment Strategy for the region. Through this process, this Regional Biosecurity Plan will be complementary to and supported by broader natural resource management goals and associated projects and activities.

#### 1.1 What is the Purpose of the Regional Biosecurity Plan?

This Plan proposes to increase efficiency and effectiveness of biosecurity management by:

- empowering Cape York communities and individual land managers to better manage country to prevent, minimise or eliminate biosecurity risks.
- delivering a regional decision making framework to support community-based programs that further develop biosecurity management capacities and capabilities at both the regional and local level.
- developing partnerships aimed at increasing the coordination of existing programs through collaborative arrangements with government and other stakeholders to identify, manage and mitigate high priority biosecurity risks.
- directing the development of, and guiding funding for, new regional biosecurity programs to tackle established and emerging biosecurity management priorities.
- incorporating traditional ecological and cultural knowledge of Aboriginal peoples and western science into biosecurity management.
- delivering biosecurity information to increase the knowledge of Cape York communities.
- providing training opportunities to enable Cape York Peninsula communities to better prevent and manage weeds and pest animals.
- providing a structure for monitoring, evaluating and reporting on Plan implementation.

The Plan builds on information contained in the previous regional Cape York Peninsula Pest Management Plan 2006 – 2011, existing Cape York local governments' pest management plans, National Park management plans, Working on Country ranger and land trusts' plans and property management plans.

This Plan is not intended to replace the raft of current plans that target biosecurity management or in any way diminish the responsibilities organisations have for implementing these plans. Rather this Plan provides a region-wide perspective of the biosecurity issues of the region by providing a region-wide planning and prioritisation framework for the management of weeds and pest animals across Cape York Peninsula for the period 2016 – 2021. The direction set in the Plan through five outcomes contained in Section 2 is underpinned by practical actions directed at regional level priorities and promoted by using a locally distinct but regionally consistent approach to identifying and communicating management priorities.

It will also put the region in a favourable position to access any future funding opportunities for pest prevention and biosecurity management.

### 1.2 The VISION for Biosecurity Management:

***Cape York Peninsula's economic, natural and cultural assets and values are enhanced and protected by managing weeds and pest animals through collaborative and coordinated approaches.***

**The MISSION for organisations with biosecurity management responsibilities is:**

***To empower Cape York communities and land managers to minimise the impacts weeds and pest animals have on Cape York Peninsulas' economy, environment, culture and communities.***

### 2.0 Plan Outcomes

The five outcomes detailed below outline how the Plan's vision and mission will be achieved through the implementation of the Plan over the next five years. The outcomes are consistent with and complement community, government and regional organisations' feedback and the Plan's guiding principles.

There is acknowledgement by regional organisations and a strong desire by Cape York Peninsula communities for greater cooperation and coordination by stakeholders involved in biosecurity management. Contemporary Cape York biosecurity management governance arrangements will play a pivotal role in ensuring coordination occurs, new partnerships are fostered and information is collected and made accessible, where it is appropriate. Strategies detailed in Outcome 1 will contribute to achieving better coordination.

The best way to empower Cape York Peninsula communities and land managers is to build their knowledge and skills about biosecurity risks and management approaches. Success in building community knowledge and skills will enhance community-led management approaches to tackle biosecurity risks affecting the Cape's economic, environmental and cultural assets and values. Strategies detailed in Outcome 2 will contribute to empowering Cape York Peninsula communities and land managers.

Preventing biosecurity risks establishing on Cape York Peninsula is widely recognised as the most efficient and cost effective outcome that can be implemented through this Plan. There is strong community and organisational support for prevention strategies that will minimise existing biosecurity risks spreading within Cape York Peninsula and new risks establishing. For these reasons emphasis has been placed on strategies in Outcome 3 that will deliver biosecurity threat prevention outcomes.

Controlling existing biosecurity risks has been a long term role of organisations involved in biosecurity management on the Cape. This focus will continue with proposed implementation strategies. Recognition of the importance of managing weed infestations and feral animal populations is embedded in existing natural resource management and land and sea management strategies and programs. Strategies detailed in Outcome 4 will further enhance existing programs.

Monitoring implementation of the Plan, regularly evaluating performance and outcomes and reporting progress back to Cape York Peninsula communities and funding providers is essential for on-going support in implementing the Plan. Strategies detailed in Outcome 5 will contribute to increasing Cape York Peninsula communities and partners' knowledge about progress and provide the platform for adaptive management. Intertwined throughout all five outcomes is the requirement to respect Aboriginal lore in planning for and implementing these outcomes and strategies and build in strategy activities that maintain and incorporate traditional ecological and cultural knowledge with western science and local knowledge.

The strategies listed under each outcome provide the direction to address priority biosecurity issues through targeted actions delivered by governments, Cape York NRM Ltd, Cape York Weeds and Feral Animal Incorporated, Cape York Peninsula communities, land managers, land and sea ranger groups and other organisations.

The Implementation Plan in Section 8.3 supports the achievement of each of the five outcomes. These underpinning strategies have been developed to guide the biosecurity activities of the organisations and land managers identified above with roles in biosecurity management and research in Cape York.

### Outcome 1:

Foster and support a COORDINATED APPROACH to biosecurity management in Cape York Peninsula.

#### Strategies:

- CA. 1 Convene bi-annual Cape York Biosecurity Governance and Advisory meetings to maximise opportunities for knowledge sharing and collaborative decision-making to implement the Plan.
- CA. 2 Facilitate partnerships to support collective effort to address biosecurity management priorities through cooperation, commitment and resource sharing.
- CA. 3 Identify and develop opportunities to share resources (people, skills, equipment and/or funds) across organisations in Cape York Peninsula to address biosecurity risks.
- CA. 4 Identify and agree on the roles and responsibilities of regional organisations and individual land managers.
- CA. 5 Ensure Cape York species specific management plans and strategies are contemporary.

### Outcome 2:

Build the KNOWLEDGE and SKILLS of Cape York Peninsula communities to respond to weeds and pest animals risks.

#### Strategies:

- KS. 1 Collaboratively develop materials and methods to raise awareness of biosecurity issues affecting Cape York's economy, environment and communities.
- KS. 2 Distribute relevant biosecurity information, tools and knowledge to meet the needs of Cape York Peninsula local governments and communities.
- KS. 3 Train relevant local government officers, community groups and Indigenous Land and Sea Rangers in pest identification and best practice management including chemical baiting techniques, Chemcert techniques, pest animal trapping and survey and weed mapping methodologies.
- KS. 4 Adopt innovative ways to motivate Cape York communities to actively participate in biosecurity management.

### Outcome 3:

PREVENT weeds and pest animals establishing and/or spreading on Cape York Peninsula.

#### Strategies:

- P. 1 Ensure that bulk materials and machinery entering the Cape are free from weed seeds.

- P. 2 Ensure vehicles and machinery are free from weeds seeds from species targeted for containment/prevention.
- P. 3 Continue surveillance activities through on-going weed and pest animal surveys and research.
- P. 4 Keep areas clean from biosecurity risks to maintain healthy environments.

Outcome 4:

CONTROL existing and limit the spread of new and emerging weed infestations and pest animal populations.

**Strategies:**

- C. 1 Support the implementation of local government biosecurity management plans.
- C. 2 Manage High Priority weeds and pest animals identified in Section 7.3 of the Strategy and various Cape York Local Government Biosecurity Management Plans.
- C. 3 Target new and emerging weeds and pest animals on detection to limit their establishment and spread.
- C. 4 Develop and implement compliance obligations in accordance with the provisions of the *Biosecurity Act 2014*.

Outcome 5:

MONITOR actions, EVALUATE progress and REPORT outcomes of the implementation of the Strategy.

**Strategies:**

- MER. 1 Utilise a standardised system for identifying and mapping the location of pest species.
- MER. 2 Map high priority weed infestations and survey pest animal populations and habitat extent annually as part of Local Government Biosecurity Management Plan and Regional Biosecurity Plan implementation and Indigenous Land and Sea Ranger Workplans.
- MER. 3 Monitor and evaluate the effectiveness of treatment techniques to ensure optimum management outcomes for future management activities.
- MER. 4 Evaluate progress on the implementation of the Plan and Local Government Biosecurity Management Plans.
- MER. 5 Provide regular reports showing progress against the Plan's implementation strategies and submit to the relevant State department (e.g. Biosecurity Queensland), all stakeholders and funding bodies.

### 3.0 Biosecurity Priorities

#### 3.1 Why prioritise?

With 66 prioritised weeds and 8 prioritised pest animal species, each with differing impacts, it is important to set priorities that all stakeholders can work towards managing. Setting priorities helps align efforts, explore efficiencies, set timeframes and milestones for achievement, plan resources and communicate goals.

#### 3.2 How were Biosecurity Priorities Determined?

Setting priorities requires an analysis of the nature of each pest species, its distribution, its potential impacts and the effectiveness and feasibility of control. In developing this Plan, the 10 Cape York local governments and Weipa Town Authority are using the same methodology for prioritising weeds and pest animals developed by FNQROC. The weed and pest animal priorities reflected in this Plan align with the priorities determined at the local government pest management planning level.

The prioritisation process applied in this Plan was redrafted from the prioritisation approach employed by the Far North Queensland Regional Organisation of Councils (FNQROC) Natural Assets Management Committee to a custom fit for the Cape York community with a full review collated by FNQROC. This has ensured a consistent approach for prioritising weeds and pest animals with far North Queensland. The FNQROC includes Cook Shire Council and Wujal Wujal Aboriginal Shire Council who are currently developing biosecurity management plans utilising this prioritisation process. Thus ensuring Cape-wide consistency and complementarity with the neighbouring local governments of the Far North Queensland region.

Details of the prioritisation process which rates the weeds and pest animals against selected criteria is available at <http://www.fnqroc.qld.gov.au/regional-programs/natural-asset-management>. The results from this process for each local government and Weipa Town Authority area are contained in Appendix 1 of the Plan.

#### 3.3 Regional Priority Weeds and Pest Animals

The priorities determined at the regional scale are weeds and pest animals which will benefit most from regional coordination and facilitated management across multiple local government areas. The selected weeds all rated as high priority in multiple local government prioritisation processes, are Weeds of National Significance (WoNS) species and pose a threat across significant areas of Cape York Peninsula. All other weed and pest animal species identified in Appendix 2 are or will be catalogued within individual local government biosecurity management plans.

In selecting the 6 weeds – Gamba grass, Hymenachne, Lantana, Parkinsonia, Pond apple and Rubber vine – the following attributes were considered:

- A strategic approach to infestations being reduced and/or eradication is an achievable outcome.
- Scattered to widespread infestations occur only in certain sections of the region – i.e. either in the drier interior and western areas or along the wet tropical coast and/or adjacent ranges.

It is acknowledged that Sicklepod also rated highly in many local government prioritisation processes. It was not included in the top six priority weeds because it is very extensive across large areas of the Cape, it is challenging to effectively manage and the resource capacity to manage strategic infestations would limit the resources to manage the other 6 higher priority weeds that there is consensus can be reduced and/or eradicated within the life of this Plan. It is also likely that individual local governments will target Sicklepod during the implementation of their local government biosecurity plan where it is determined to be a priority.

Feral pigs rated the highest pest animal priority in all local government biosecurity prioritisation processes. The following attributes support feral pig management as a regional biosecurity priority:

- There has been an on-going concerted management effort supported by all levels of government over the past 15 years with significant progress being made in reducing feral pig numbers.
- Impacts on environmental, economic and cultural assets and values throughout the Cape.
- Governance arrangements fostering coordination and cooperation are in place, being widely supported by key stakeholders and governments continue to invest in this governance arrangement.

Wild and/or unmanaged dogs were also highly rated in biosecurity prioritisation processes because of the significant impact they have on grazing, especially at calving times. Wild dogs also predate turtle nests contributing to the significant reduction in successful turtle hatching numbers. Unmanaged dogs are a problem in and around Cape York communities impacting on native wildlife, other domestic pets and potentially carrying disease and pathogens affecting humans and other animals.

There has been widespread management of wild dogs throughout the Cape and it is anticipated that these efforts will continue into the future.

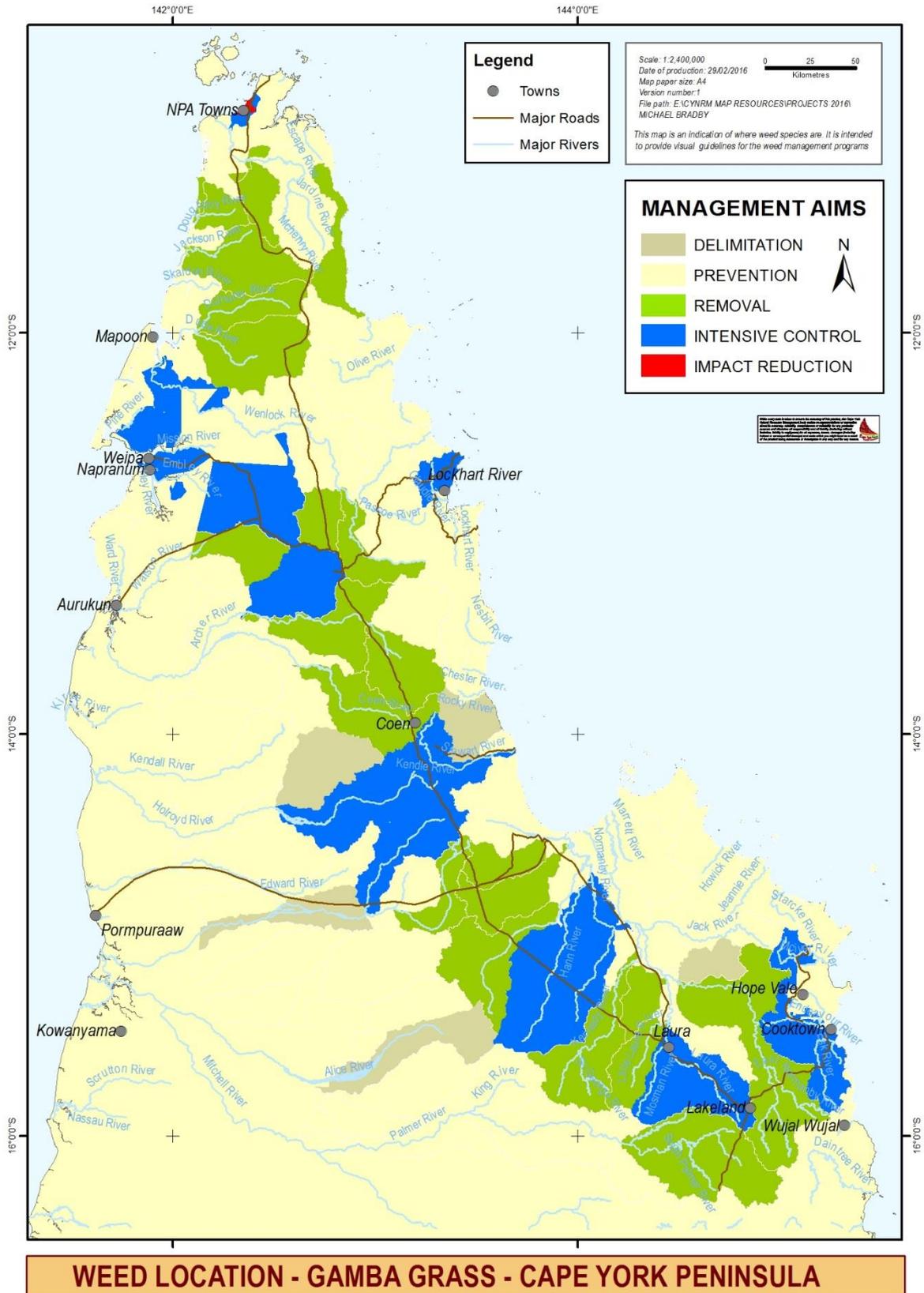
The details, management aims and maps depicting location and management approaches follow.

**Gamba grass (*Andropogon gayanus*)**

<b>Details</b>	<p><b>Description:</b> A robust, upright perennial 2 -4 metres with distinctive plumed seed heads.</p> <p><b>Distribution:</b> Three core infestations at Bamaga, Weipa and Cooktown. Roadsides (and in adjoining open areas) are impacted or exposed to risk of spread. Outlier infestations are scattered throughout the Cape including along McIvor and Starcke roads (and in open areas up to 100 metres), at Mt Baird near Glenrock Station and Alkoomie Station.</p> <p><b>Impacts:</b> Gamba grass was planted as a tropical pasture but has escaped from intensively grazed northern Australian grazing systems. It outcompetes native pastures and fuels intense fires which are difficult to manage and pose a significant threat to property and ecosystems.</p> <p><b>Key projects:</b> An active management plan is being implemented across Cape York Peninsula. An industry code of practice for containment of pasture plantings is required to assist graziers manage the risk of spread.</p>
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<b>Management Aims</b>	<b>Delimitation</b>	n/a																																																																																																																
	<b>Prevention</b>	Spread by vehicles needs to be addressed. Roadsides should be monitored in growing season to detect any new outbreaks.																																																																																																																
<b>Control Calendar</b>	<b>Removal</b>	Removal of scattered infestations along McIvor and Starcke roads and at Mt Baird near Glenrock Station near Hopevale.																																																																																																																
	<b>Intensive Control</b>	Outlier infestations and recent introductions on roadsides are subject to an intensive control program to remove risk of establishment of dense infestations.																																																																																																																
	<b>Impact Reduction</b>	Containment of key infestations and maintenance of buffers on roadsides, tracks and where it is grown as a pasture crop can reduce spread and minimise risk of intense fires.																																																																																																																
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# Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



**Hymenachne (*Hymenachne amplexicaulis*)**

**Details**

**Description:** A robust, upright perennial aquatic grass 1-2 metres with distinctive stem clasping leaves.

**Distribution:** Scattered throughout the Cape in wetlands, drainage systems and dams where it chokes waterbodies and has the potential to be spread extensively during wet season flood events.

**Impacts:** Blocks creeks, drainage systems, dams and wetlands. Rapidly invades and outcompetes native plants in wetlands and waterways. Prevents fish movement and breeding opportunities for key fish species.

**Key projects:** On-going priority targeted eradication program by Cook Shire Council and Kowanyama and Pormpuraaw rangers to manage the risk of spread.

**Management Aims**

**Delimitation**

Regular surveys conducted over entire Western Cape coastal plains to Bamaga.

**Prevention**

On-going surveillance along wetlands and waterways to minimise risk of new incursions from Rathole to Gooseberry Creek and Holroyd/Kendall Floodplain.

**Removal**

Removal of existing incursions at Busted Guts Dam, 4 incursions within the Holroyd/Kendall Floodplain and at McIvor Road lagoons near Hopevale.

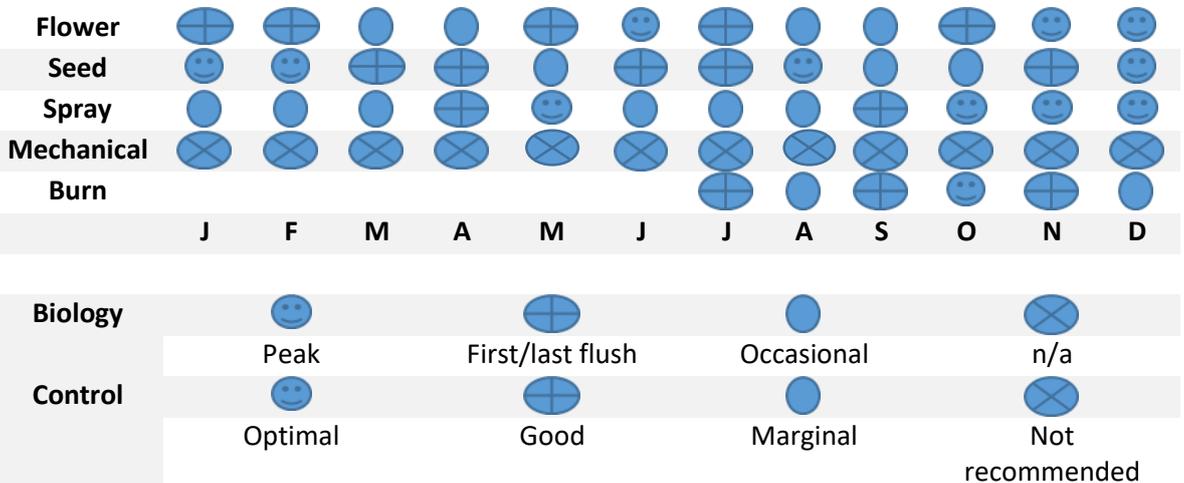
**Intensive Control**

Intensive control program undertaken at Kokoburra, Muo and Duckhole swamps and the dam at Rutland Station east of the station turnoff.

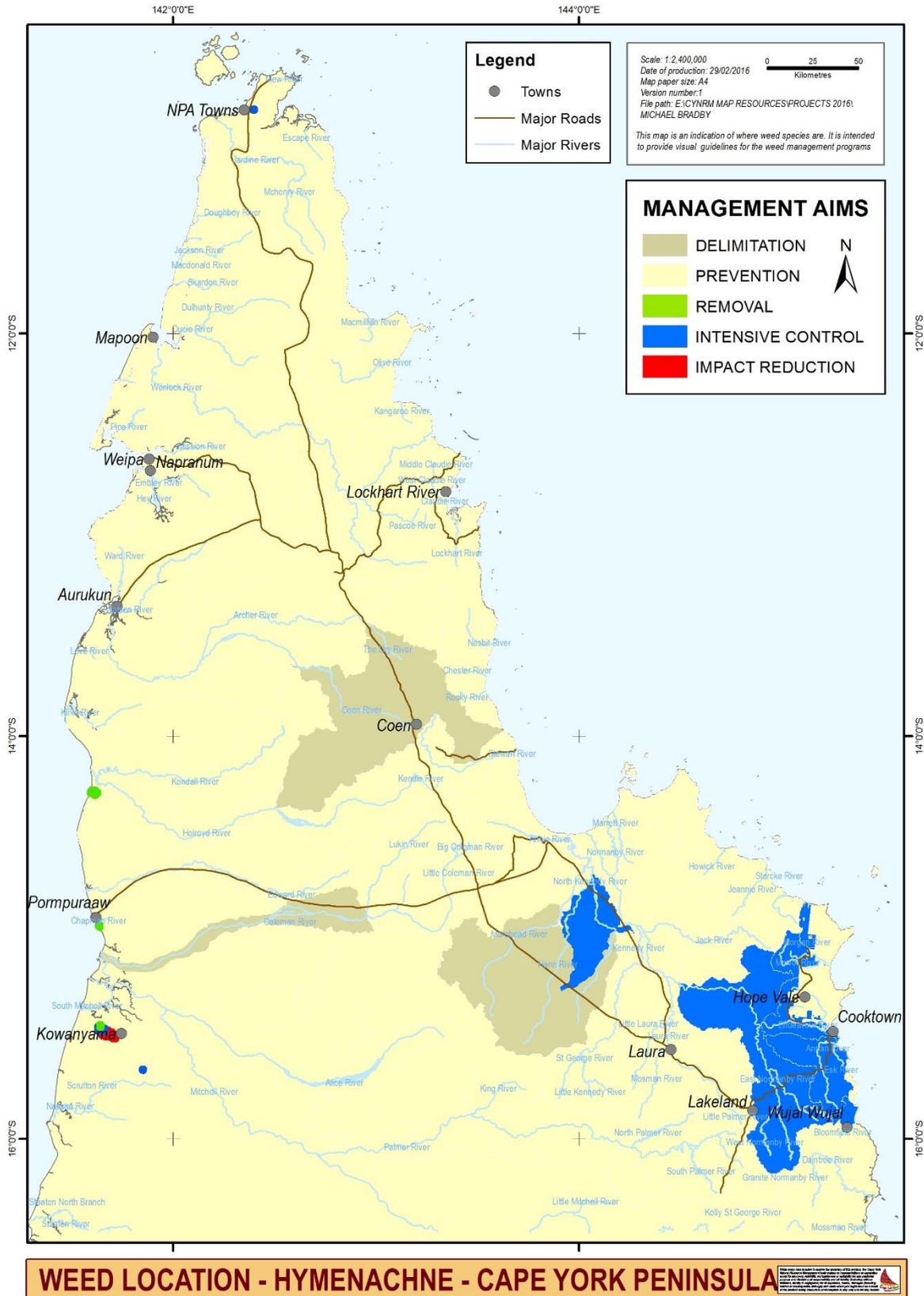
**Impact Reduction**

Impact reduction in remaining locations in the central Cape, infestations in and around Hopevale and Cooktown and north of Wujal Wujal, Annan, Endeavour, and Daintree catchments, the Bamaga farm dams.

**Control Calendar**



# Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



**Lantana (*Lantana camara*)**

**Details**

**Description:** A heavily branched scrub that can grow in compact clumps, dense thickets or as a climbing vine. The stems of lantana are square with small, re-curved prickles. The small leaves (6cm) are covered in fine hairs, bright green above, paler underneath and have round toothed edges.

**Distribution:** Scattered infestations along the eastern Cape coastal areas. Heaviest infestations in south eastern Cape coastal areas.

**Impacts:** A significant weed of natural systems, lantana displaces understorey species and alters fire regimes. Lantana can cause poisoning to stock.

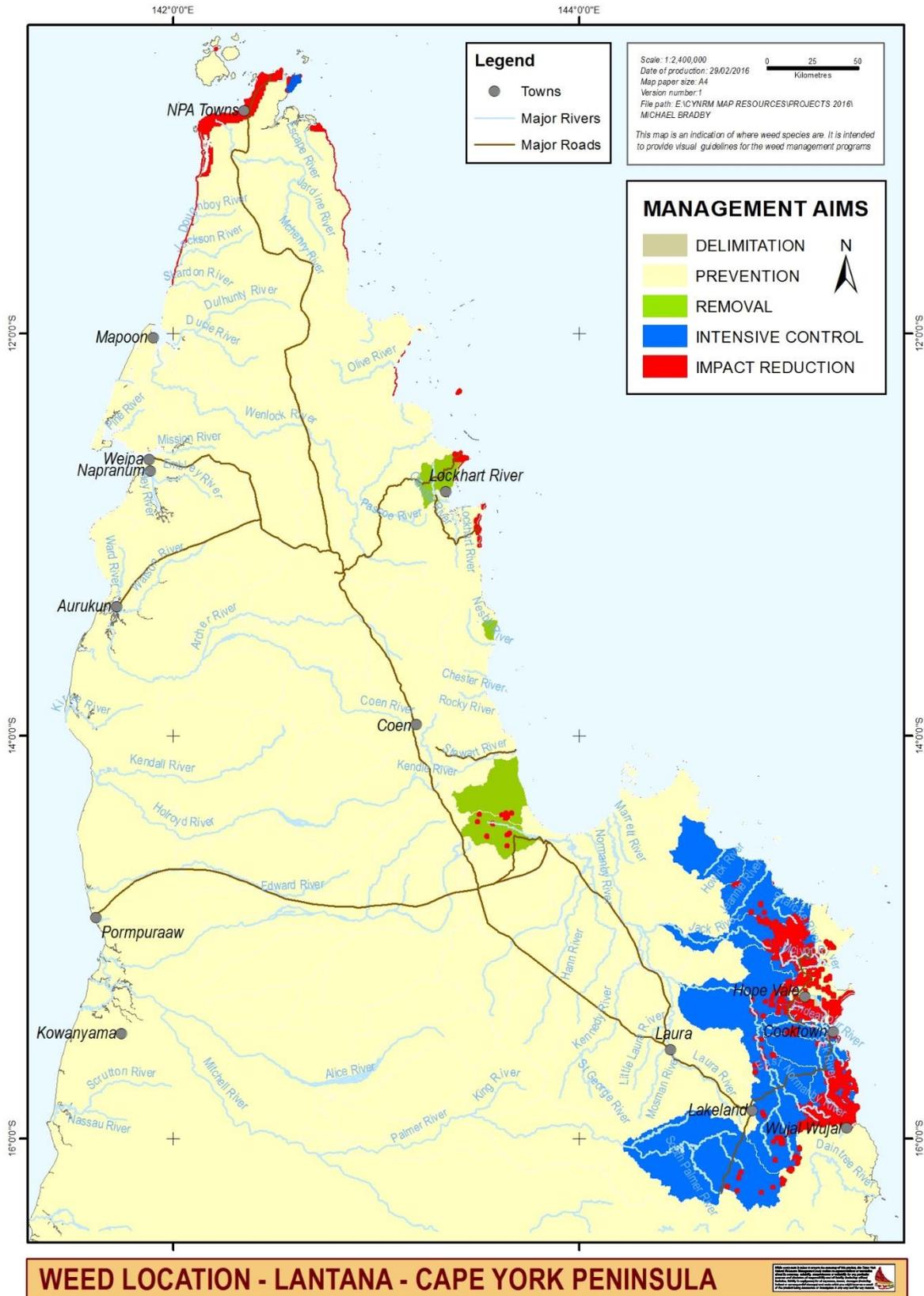
**Management Aims**

<b>Delimitation</b>	On-going surveillance to determine current extent and minimise risk of new incursions in the creeks downstream of known infestations and outside the Lantana containment line.
<b>Prevention</b>	On-going surveillance along eastern Cape to minimise risk of new incursions.
<b>Removal</b>	Forbes and Albany Islands and various infestations at Portland Roads and Cape Weymouth are subject to a removal program.
<b>Intensive Control</b>	Hell Fire Bend infestation in Hopevale local government area subject to an intensive control program.
<b>Impact Reduction</b>	Significant infestations in the south east corner of the Cape around Hopevale, Cooktown and Wujal Wujal

**Control Calendar**

Flower	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	
Seed	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	😊	
Spray	🟦	🟦	🟦	🟦+	😊	😊	🟦+	🟦	🟦	🟦	🟦	
Slash	🟦	🟦	🟦	🟦	🟦	🟦	🟦	🟦	🟦	🟦	🟦	
Burn							🟦	🟦+	😊	🟦+	🟦	
	J	F	M	A	M	J	J	A	S	O	N	D
Biology		😊			🟦+			🟦			🟦×	
		Peak			First/last flush			Occasional			n/a	
Control		😊			🟦+			🟦			🟦×	
		Optimal			Good			Marginal			Not recommended	

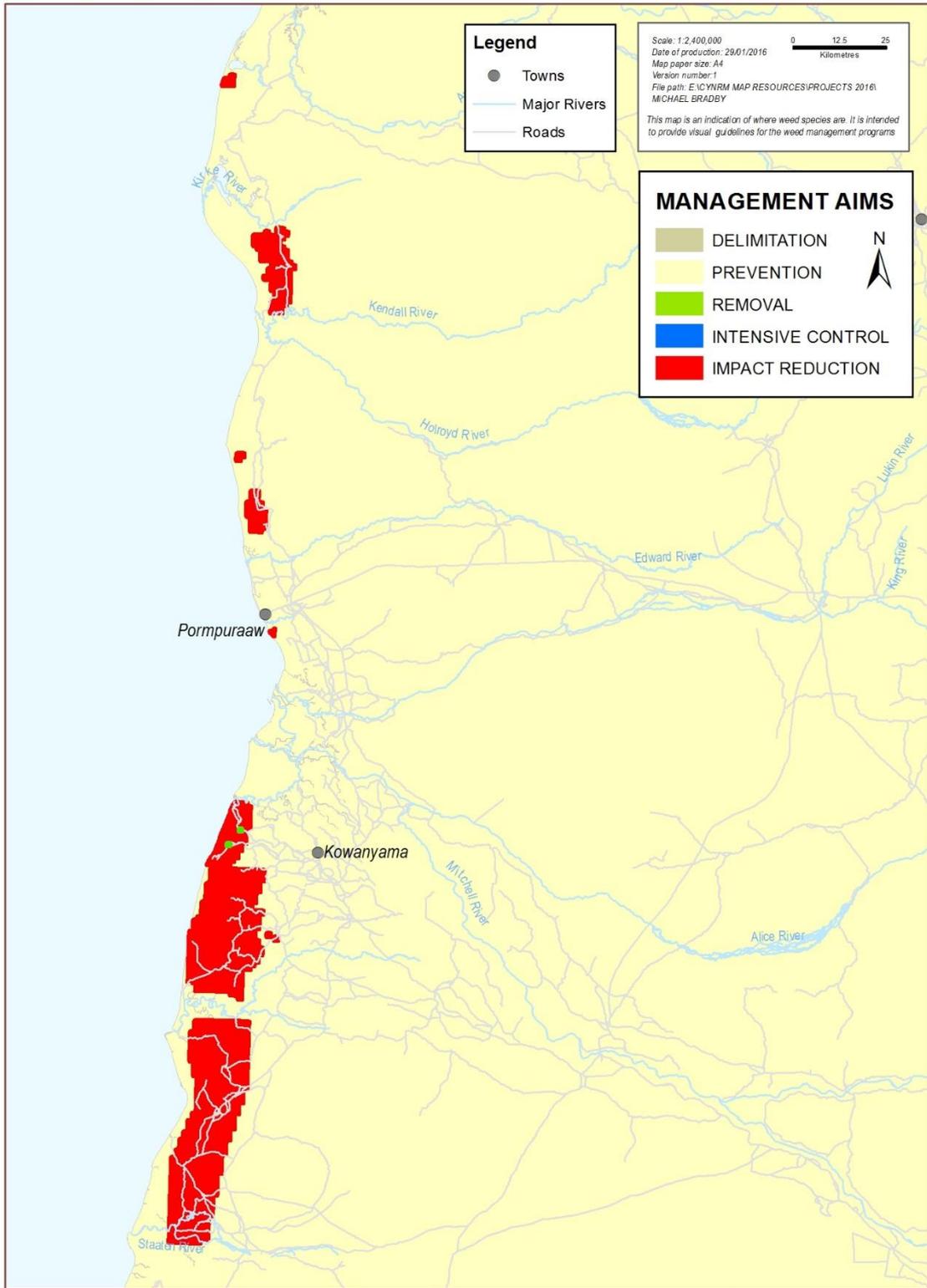
# Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



**Parkinsonia (*Parkinsonia aculaete*)**

<b>Details</b>	<p><b>Description:</b> A shrub or small tree growing up to 10 metres. It has slender green, photosynthetic zigzag branches that have sharp spines. Flowers are yellow, fragrant and have 5 petals on a long drooping stalk. The seeds are oval, hard and about 1.5cm long and are viable for several years. Pods mature in late summer, float on water and are therefore readily dispersed by floodwaters.</p> <p><b>Distribution:</b> Widespread infestations along the western Cape coastal plains from Kowanyama to Weipa.</p> <p><b>Impacts:</b> Parkinsonia can form dense often impenetrable thickets along watercourses and other wet areas that have the potential to harbour feral animals.</p> <p><b>Key projects:</b> Annually controlled in prevention, removal and intensive control zones.</p>
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<b>Management Aims</b>	<b>Delimitation</b>	n/a
	<b>Prevention</b>	Regular surveillance and spot removal along the western Cape coastal plains
	<b>Removal</b>	Removal of infestations north of Topsy Creek, south of the south Mitchell River and at Penkelthan and Melleman River.
	<b>Intensive Control</b>	Annual intensive control of existing infestations at identified locations.
	<b>Impact Reduction</b>	Property boundaries and road corridor buffers established for infestations on Rutland Plains and Inkerman Stations, south of Archer River and south of "Big Lake".
<b>Control Calendar</b>	<b>Flower</b>	
	<b>Seed</b>	
	<b>Spray</b>	
	<b>mechanical</b>	
	<b>Biological control</b>	
		J F M A M J J A S O N D
	<b>Biology</b>	
		Peak First/last flush Occasional n/a
	<b>Control</b>	
		Optimal Good Marginal Not recommended

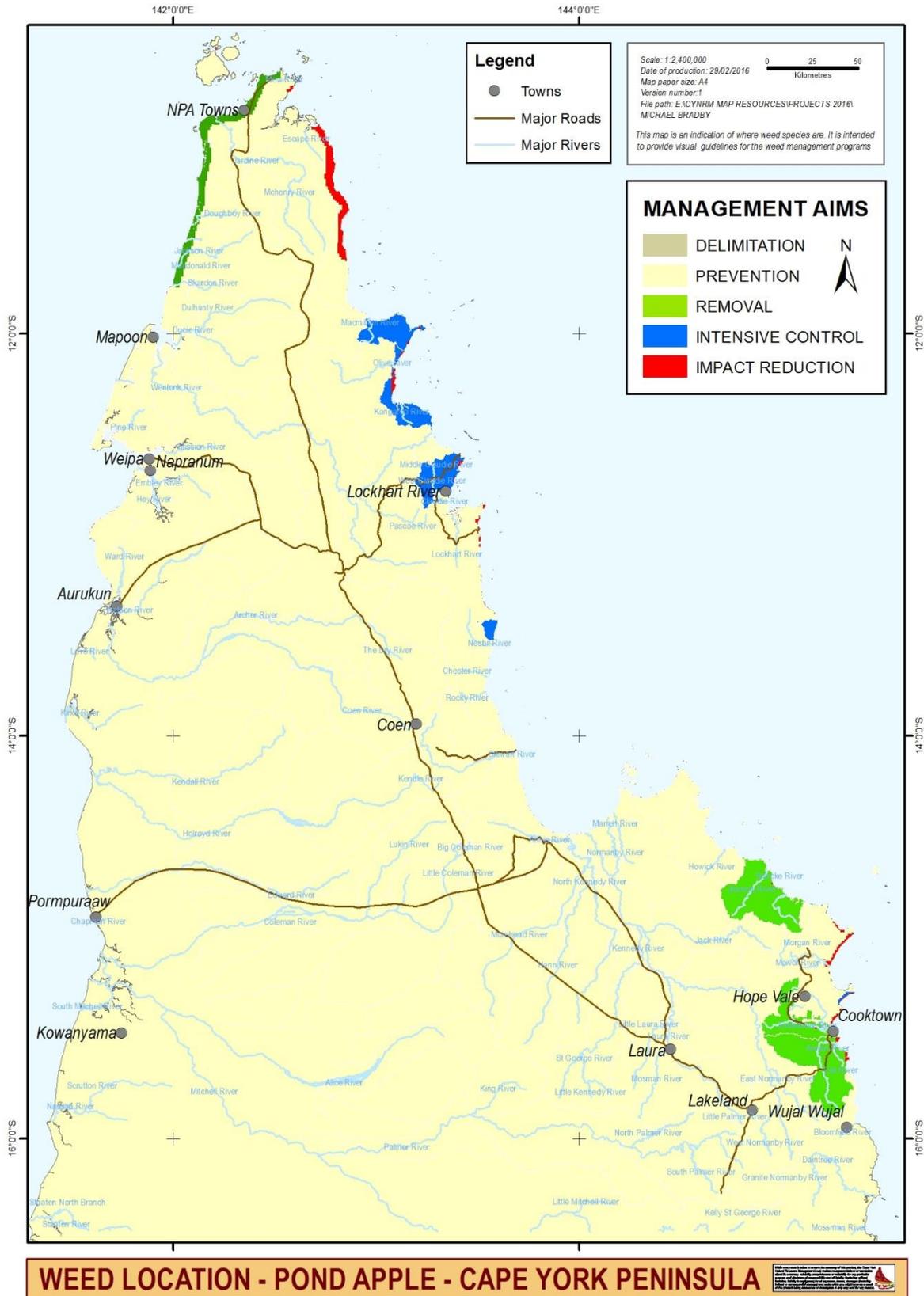


**WEED LOCATION - PARKINSONIA - CAPE YORK PENINSULA**

**Pond Apple (*Annona glabra*)**

<b>Details</b>	<p><b>Description:</b> small tree to 16 metres. Likely to occur in wetlands, swampy areas and along waterways. Leaves are lighter below than above and have a green apple scent when crushed. The large fruit is similar to custard apple and are filled with floating seeds similar in size to pumpkin seeds.</p> <p><b>Distribution:</b> Numerous small infestations along the eastern Cape from Wujal Wujal to Bamaga.</p> <p><b>Impacts:</b> Invades a wide range of swampy areas. Forms dense thickets that exclude native ground and shrub layer plants, prevents regeneration of trees and chokes wet areas.</p> <p><b>Key projects:</b> Priority targeted eradication program by Kuuku Ya'u and Apudthama land and sea rangers conducted annually to remove mature trees at Temple Bay. This control program will be extended to other areas over time. Rangers and local government officers will also conduct surveillance along their east coast country during other coastal activities.</p>																																																																																																																																				
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# Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



**Rubber vine (*Cryptostegia grandiflora*)**

**Details**

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

**Distribution:** Isolated infestations located along western Cape coastal plains from Kowanyama to Weipa. Numerous infestations along watercourses in central and south eastern Cape York Peninsula.

**Impacts:** Smothers native vegetation, impedes movement, alters fire regimes and vegetation composition. Is poisonous to stock, though rarely eaten.

**Key projects:** Annually controlled at identified locations using best practice methods suitable for respective land types. Surveying for infestations north of the containment line. Department of Main Roads progressing containment of infestations along roads.

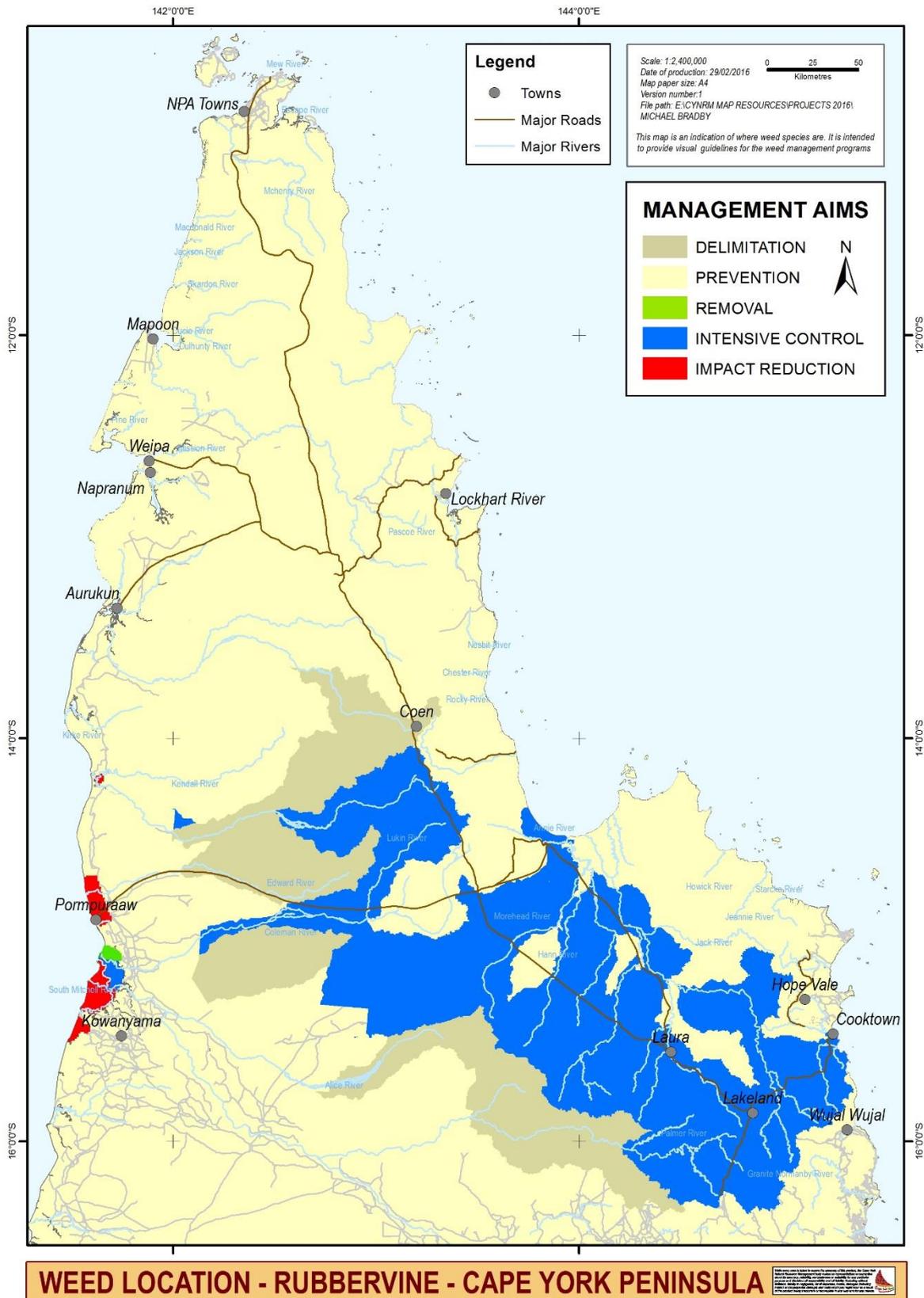
**Management Aims**

<b>Delimitation</b>	n/a
<b>Prevention</b>	Regular surveillance and spot removal north of the along the coastal plains between Topsy Creek and the South Mitchell River.
<b>Removal</b>	Removal of infestations at Chillagoe Pocket.
<b>Intensive Control</b>	Annual intensive control of existing infestations north of Topsy Creek in dune system and Kowanyumal Island.
<b>Impact Reduction</b>	Buffers established for large infestations in the Chapman, Munkan, Edward and Bulerga Rivers areas and at the mouth of Kendall-Holroyd River. Buffers also established for infestations along the Kendall and Moorhead rivers and roadsides south of Lakeland to Cooktown, north of Laura and Lukin River north of the containment line (Pompuraaw Road).

**Control Calendar**

<b>Flower</b>												
<b>Seed</b>												
<b>Herbicide</b>												
<b>Cut</b>												
	J	F	M	A	M	J	J	A	S	O	N	D
<b>Biology</b>												
		Peak		First/last flush			Occasional				n/a	
<b>Control</b>												
		Optimal		Good			Marginal				Not recommended	

# Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



**Feral Pig (*sus scrofa*)**

**Details**

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

**Distribution:** Wide spread throughout the Cape especially on the coastal plains, wetlands and waterholes.

**Impacts:** Feral pigs have a significant impact on turtle rookery areas, wetlands, waterholes and gardens and crops. They transmit disease and could spread exotic diseases such as foot and mouth if this was introduced in the country.

**Key projects:** An on-going feral pig management program has been established to minimise the environmental impacts of feral pigs on the western Cape involving all western Cape Indigenous Land and Sea ranger groups. The program is being extended to targeted eastern Cape coastal areas through funding to Indigenous groups from the Nest to Ocean Turtle Protection Program. Cook Shire Council and Queensland Parks and wildlife Service have on-going baiting and trapping programs

**Management Aims**

**Delimitation**

On-going monitoring of nesting beaches to determine nesting occurrence and nest predation.

**Prevention**

n/a

**Removal**

n/a

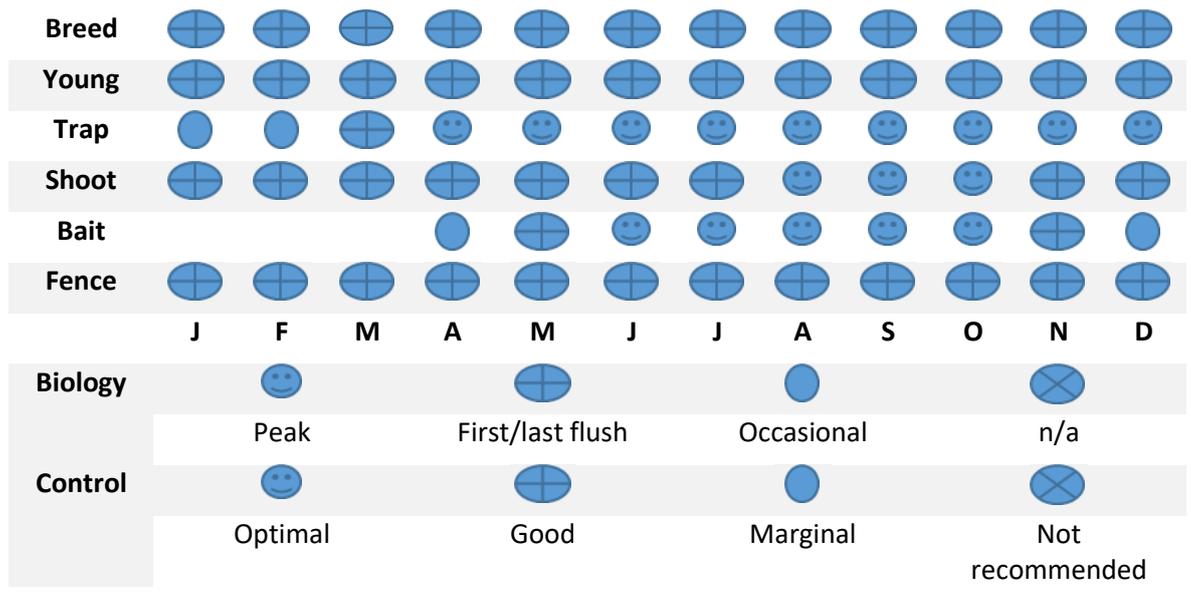
**Intensive Control**

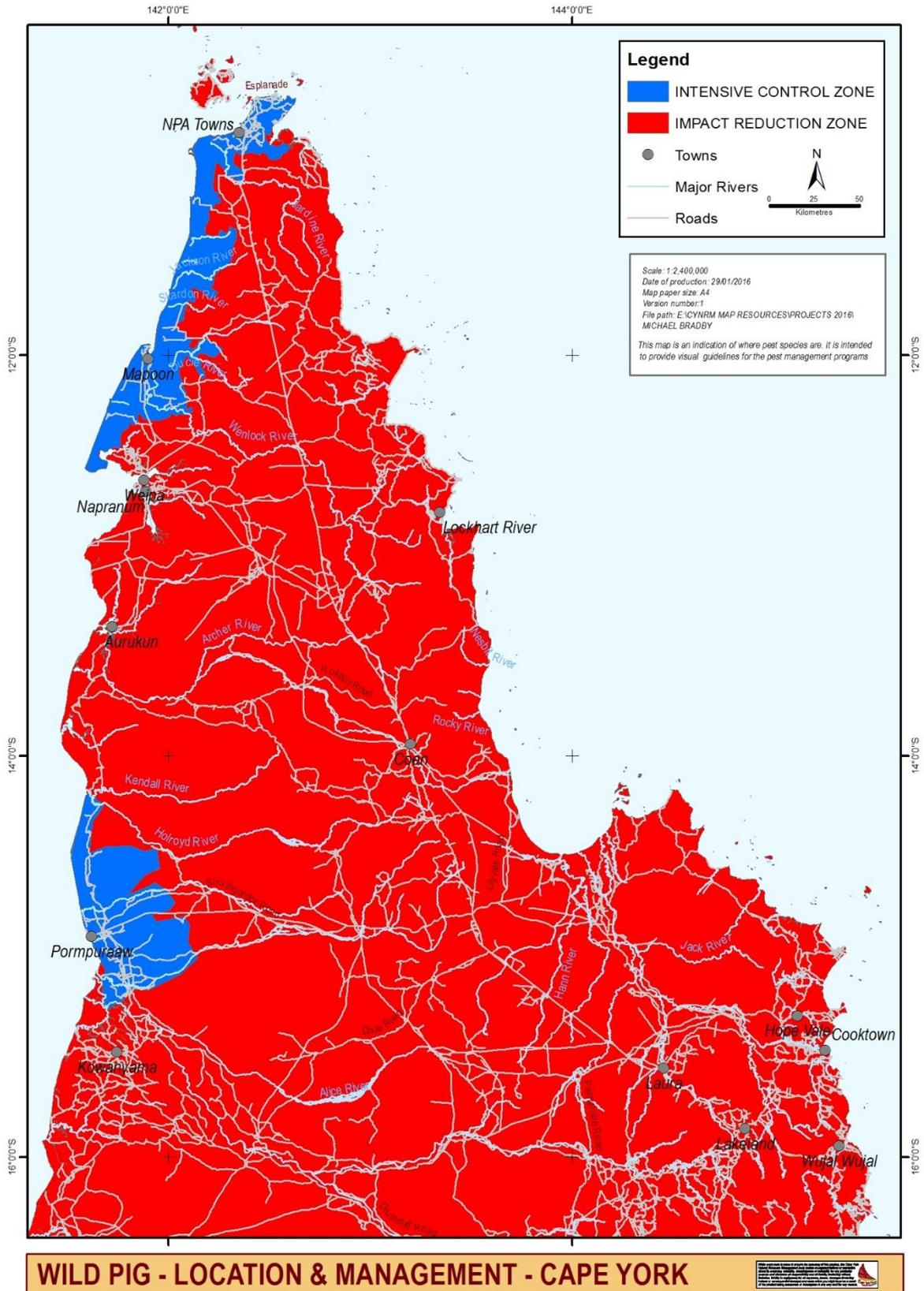
Sentinel turtle nesting beaches and RAMSAR wetlands specifically targeted.

**Impact Reduction**

An on-going feral pig management programs are in place to reduce the impact on turtle rookeries, wetlands, waterholes, crops and gardens.

**Control Calendar**





**Wild Dogs (*Canis familiaris*)**

**Details**

**Description:** Wild and unmanaged dogs include wild domestic dogs and hybrids but exclude dingos.

**Distribution:** Common and widespread throughout Cape York Peninsula.

**Impacts:** Wild and unmanaged dogs can have a significant impact throughout Cape York, particularly causing stock losses in calving season, killing wildlife, impacting of turtle nests, diluting the pure bred dingo population and often carrying parasites and pathogens. Near communities they can cause a nuisance and impact on other domestic animals.

**Key projects:** Annual wild dog management programs have been established by Cook Shire Council, Aboriginal Shire Councils, Indigenous Land and Sea ranger groups and Cape York Weeds and Feral Animal Inc. to reduce dog numbers.

**Delimitation**

On-going monitoring to identify high impact areas.

**Prevention**

n/a

**Removal**

n/a

**Intensive Control**

Grazing properties and sentinel turtle nesting beaches specifically targeted. In and around Cape York communities.

**Impact Reduction**

Councils have local laws governing the keeping of dogs.

**Breed**



**Young**



**Trap**



**Shoot**



**Bait**



J F M A M J J A S O N D

**Biology**



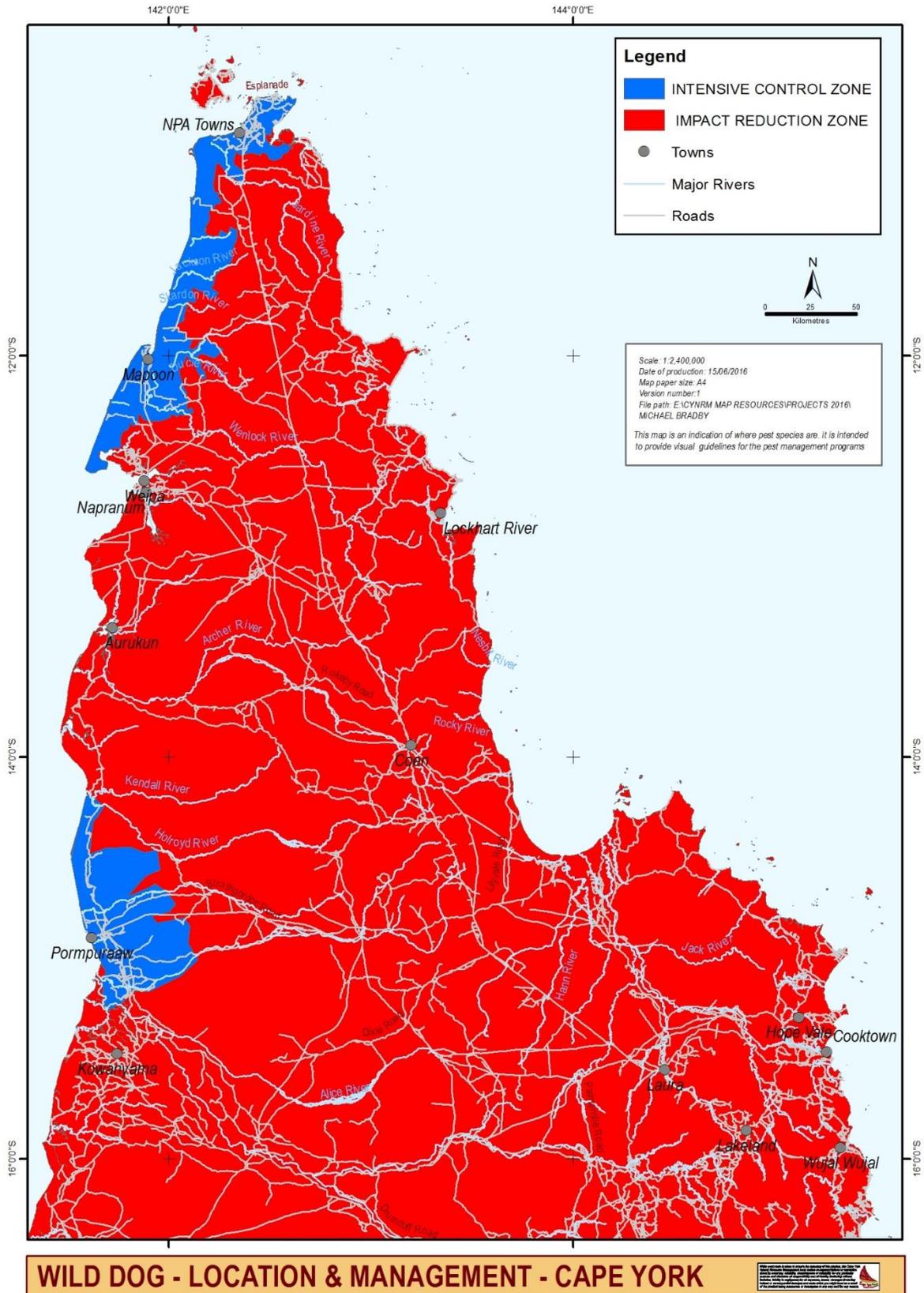
Peak First/last flush Occasional n/a

**Control**



Optimal Good Marginal Not recommended

Cape York Peninsula Regional Biosecurity Plan 2016 - 2021



#### 4.0 What are the Arrangements for Implementing the Plan?

To achieve the Plan’s vision, implementation effort has to be aligned and focussed on supporting the enduring capacity of Cape York Peninsula communities and land managers to practice appropriate management of land and sea country. Strong local and regional governance arrangements are fundamental to foster a coordinated commitment to empowering communities and land managers. Cape York region-wide governance arrangements will play a pivotal role in the oversight of the implementation of the Plan. A draft terms of reference for these region-wide governance arrangements is attached at Appendix 2.

The Plan outcomes and accompanying strategies set out in Section 6 will be implemented through the actions identified in the Implementation Plan (Section 8.3). The Implementation Plan reflects the cooperative management of weeds and pest animals and includes actions to be undertaken by all stakeholders. The Implementation Plan highlights actions within a five year implementation time frame. Each action identifies stakeholder/s responsible for delivering actions, sets time frames and indicators of success against which the plan intends to be evaluated. Some actions identified in the plan are already underway as part of existing duties, legislative responsibilities and/or projects.

Monitoring implementation progress, evaluating the effectiveness of actions and adopting an adaptive management focus that have influenced the development of the Plan will be an integral part of implementing the Plan. Community feedback reflects a desire for a genuine region-wide commitment beyond legislative frameworks and that compliance and enforcement be utilised as a resource rather than as a stick and only after other approaches have been exhausted.

#### 4.1 Who can Contribute to Implementation?

Implementation of the Plan will take a cohesive effort by all stakeholders to varying degrees depending on their roles and responsibilities, capacity, capability and the nature of their contribution. What is unequivocal is that implementation of the Plan by contributors will involve cooperation, coordination and commitment of organisations and resources for success.

It is important, prior to implementation commencing, that all contributors are clear and agreed on their respective roles and responsibilities. Table 2 details respective contributors and their responsibilities.

**Table 2 – Contributors to Plan Implementation**

Contributing Organisation	Responsible for:
Australian government: Department of Agriculture and Water Resources (includes Northern Australia Quarantine Strategy)	<ul style="list-style-type: none"> <li>• Administers the <i>Biosecurity Act 2015</i> (Cth) and <i>Biological Control Act 1984</i> (Cth)</li> <li>• Provides constitutional responsibility for quarantine on behalf of the Australian government.</li> <li>• Coordinates nation-wide approaches to weeds.</li> <li>• Funds the Northern Australia Quarantine Strategy that undertakes plant and animal health surveys in Cape York.</li> <li>• Administers the National Landcare Program in conjunction with Department of Environment.</li> </ul>
Department of Environment	<ul style="list-style-type: none"> <li>• Administers the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth).</li> <li>• Provides constitutional responsibility for species or areas of international importance (e.g. sites listed under the Ramsar Convention on Wetlands or the Convention Concerning the Protection of the World Cultural and Natural Heritage) and the preservation of biodiversity under the International Convention on Biological Diversity.</li> <li>• Funds environmental programs that support biosecurity management activities – Caring for our Country and Working on Country programs.</li> <li>• Funds biosecurity research programs through CSIRO and other organisations.</li> </ul>

<p>State government: Department of Agriculture and Fisheries, Biosecurity Queensland (BQ)</p> <p>Departments of Natural Resources and Mines, Transport and Main Roads</p> <p>Departments of Natural Resources and Mines, Environment and Heritage Protection</p>	<ul style="list-style-type: none"> <li>• Administers the <i>Biosecurity Act 2014</i> which:             <ul style="list-style-type: none"> <li>○ outlines the biosecurity responsibilities of different stakeholders;</li> <li>○ requires local governments to prepare a Biosecurity Management Plan for its local government area and allows multiple local governments to plan jointly.</li> <li>○ requires local governments to take responsibility for managing weeds and feral animals within their local government area</li> </ul> </li> <li>• Contributes to identifying areas Councils should direct their efforts.</li> <li>• Provides technical and management information and officers training to Council personnel.</li> <li>• Ensures that declared weeds, pest animals and plant and animal diseases identified as prohibited and restricted matters in the <i>Biosecurity Act 2014</i> under the control of other Government Department.</li> <li>• Responds to new incursions of weeds, pest animals, and diseases in Queensland.</li> <li>• Researches weeds and pest animals</li> <li>• Controls pests on state-controlled land.</li> <li>• Administers funding programs that support biosecurity management projects.</li> <li>• Administers and funds the QLD Indigenous Land and Sea Ranger Program.</li> </ul>
<p>Cape York NRM Ltd (CY NRM)</p>	<ul style="list-style-type: none"> <li>• Administers funding programs on behalf of the Australian and Queensland governments that support biosecurity management projects.</li> <li>• Supports and recognises RNTBCs as the recognised holders on native title responsibilities over land and sea country in Cape York.</li> <li>• Recognises the important roles played by graziers, land managers, Landcare and catchment groups in managing land.</li> <li>• Recognises the important roles played by Balkanu Aboriginal Corporation and Cape York Land Council in promoting the collective interests of native title holders over lands and seas across the Cape York region.</li> </ul>
<p>Balkanu Aboriginal Corporation</p> <p>Cape York Land Council</p>	<ul style="list-style-type: none"> <li>• Supports RNTBCs and land trusts in land and sea planning and management.</li> <li>• Promotes the interests on traditional Owners and Native Title holders and claimants.</li> </ul>
<p>Local Governments (CY LGs): Northern Peninsula Regional Council (NPARC)</p> <p>Cook Shire Council (CSC)</p> <p>Weipa Town Authority (WTA)</p> <p>Wujal Wujal, Hopevale, Lockhart, Mapoon, Napranum, Aurukun, Pormpuraaw and Kowanyama Aboriginal Shire Councils</p>	<ul style="list-style-type: none"> <li>• Plays a key role in biosecurity management by enforcing relevant provisions of the <i>Biosecurity Act 2014</i> including:             <ul style="list-style-type: none"> <li>○ Ensuring that weeds, pest animals and plant and animal diseases identified as prohibited and restricted matters in the <i>Biosecurity Act 2014</i> are controlled within their area and on lands under its control;</li> <li>○ Ensuring that people discharge their GBO by performing the relevant management actions for each of the priority pests; and</li> <li>○ Developing Biosecurity Plans for the management of Invasive Biosecurity Matter for their LGA.</li> </ul> </li> <li>• Employs Council Officers to undertake biosecurity management responsibilities detailed in the <i>Biosecurity Act 2014</i></li> <li>• Supports the administration of the Land and Sea Ranger Program which undertakes biosecurity management activities in many indigenous communities.</li> </ul>

Registered Native Title Body Corporates (RNTBCs) Land Trusts	<ul style="list-style-type: none"> <li>• Approves plans that promote land and sea management and associated implementation and operation and plans.</li> <li>• Endorses the land and sea activities of Land and Sea rangers operating in many Cape York communities.</li> </ul>
Research Institutions (RI)	<ul style="list-style-type: none"> <li>• Undertakes specific research projects supplemented by traditional ecological and cultural knowledge to inform biosecurity management activities.</li> </ul>
Cape York Peninsula communities	<ul style="list-style-type: none"> <li>• Plays an influential role in protecting and preserving important environmental and cultural assets and values threatened by weeds and pest animals.</li> </ul>
All Land Managers	<ul style="list-style-type: none"> <li>• Have responsibilities to control weeds and pest animals identified as prohibited and/or restricted matters in the <i>Biosecurity Act 2014</i> on their land and have a general biosecurity obligation as defined in the Act.</li> </ul>

#### 4.2 How will Implementation Occur?

The majority of actions highlighted within the Implementation Plan may be carried out as part of the implementation of existing delivery mechanisms including plans, strategies, programs and projects. However it should be noted that to enhance current programs/activities further funding will be required. In addition many of the actions in the Implementation Plan are unfunded and to be advanced will require new funding.

The outcomes and accompanying strategies outlined in the Implementation Plan will be advanced through a raft of mechanisms operating at both the regional and local level and also through new funding opportunities including:

Integrating with other local and regional strategies and plans that encompass biosecurity management (ie. local government biosecurity management plans, the Cape York NRM Plan, National Park pest management plans).

Community-based planning documents (ie. Working on Country Ranger Plans, Indigenous Protected Area Management Plans).

Property specific management plans, including National Park Management Plans and pest management plans for agricultural properties.

Seeking additional funding opportunities from new government initiated funding programs where Plan outcomes align with governments' priorities.

Annual reviews of plan implementation progress will be conducted to ensure adaptive management principles are incorporated and new funding opportunities can be accessed by aligning new government program priorities with existing strategy priorities.

## Cape York Peninsula Regional Biosecurity Plan 2016 - 2021

### 4.3 Implementation Plan

Outcome 1: Foster and support a COORDINATED APPROACH to biosecurity (pest) management in Cape York Peninsula.

Strategy Reference No.	Implementation Actions	How will Success be Measured	Who is Involved	Timeframe	Resourcing	Action Status
CA.1	Convene bi-annual Cape York Biosecurity Governance and Advisory meetings to maximise opportunities for knowledge sharing and collaborative decision-making to implement the Plan.					
CA 1.1	Convene biannual meetings to decide on annual Plan Implementation Strategy (by April each year) and monitor, evaluate and report (MER) on implementation progress (by November each year).	Cape York Biosecurity Governance and Advisory meeting convened. Annual Plan Implementation Strategy finalised. MER process conducted on Plan implementation.	CY NRM convene	2 meetings per year	Absorbed	Year 1 commencement
CA 1.2	Participate in and attend meetings.	Stakeholder participation in region-wide governance meetings.	All	2 meetings per year	Absorbed	Underway
CA 1.3	All stakeholders contribute to Regional Biosecurity Plan implementation.	Implementation of strategy on schedule.	All	Ongoing	Absorbed	Year 1 commencement
CA.2	Facilitate partnerships to support collective effort to address biosecurity management priorities through cooperation, commitment and resource sharing.					
CA 2.1	Maximise efficiency and efficacy of biosecurity management activities by coordinating actions with key Cape York stakeholders.	Actions undertaken in partnership with other stakeholders where appropriate.	CY NRM, CY LGs, CYWFAI, BQ, NAQS, RI	Commence Year 1 and then ongoing	Absorbed	Not started
CA 2.2	Involve local communities and community groups in site-based management of priority weeds and pest animals in Cape York where appropriate.	Local communities involved through community environment programs. Identify local 'champion' in each Cape York community.	All	Ongoing	Absorbed	Not started
CA 2.3	Maintain effective communication about new and emerging biosecurity risks with BQ and NAQS.	Relationships with BQ and NAQS maintained.	CY NRM, CY LGs, BQ and NAQS	Ongoing	Absorbed	Underway
CA.3	Identify and develop opportunities to share resources (people, skills, equipment and/or funds) across organisations in Cape York Peninsula to address pest risks.					
CA 3.1	Develop and implement a regional biosecurity management communication and marketing strategy.	Completion and implementation of strategy.	All led by CY NRM	Year 1	Absorbed	Not started

## Cape York Peninsula Regional Biosecurity Plan 2016 - 2021

CA 3.2	Investigate and adopt new and innovative ways to share resources and disseminate information.	More data and resource sharing methods explored and adopted.	All	Ongoing	Absorbed	Not started
CA 3.3	Maximise efficiency and efficacy of biosecurity management activities by coordinating actions with key Cape York stakeholders (as per action CA 2.1).	Actions undertaken in partnership with other stakeholders where appropriate.	CY NRM, CY LGs, BQ, NAQS, RI	Commence Year 1 and then ongoing	Absorbed	Not started
CA 3.4	Identify direct and indirect linkages with strategies, policies and programs.	Stay up to date of current government policies and programs etc.	CY NRM, CY LGs	Ongoing	Absorbed	Underway
CA 3.5	Include commitments to biosecurity management in stakeholder strategic and operational plans.	Increase in collective funding/project opportunities.	All	Ongoing	Absorbed	Underway
CA 3.6	Contribute data to state pest mapping and data collection initiatives.	Relevant data included in Pest Central.	All	Ongoing	Absorbed	Not started
CA 3.7	Establish data sharing protocols.	Current protocols between stakeholders discussed.	CY NRM, CY LGs, BQ, NAQS	Ongoing	Absorbed	Not started
CA 3.8	Establish research partnerships between local, state and federal government, universities, CSIRO and industry.	Research projects continue and new proposals collaboratively developed with partners.	All	Ongoing	Absorbed	Underway
CA 3.9	Identify existing sources of biosecurity management data for mapping/monitoring purposes.	Register of biosecurity management data developed.	CY NRM, CY LGs, BQ	Ongoing	Absorbed	Underway
CA 3.10	Communicate the availability of resources, materials and services to land managers to contribute to managing biosecurity risks.	Community meetings are utilised to communicate the availability of resources etc.	All	Ongoing	Absorbed	Not started
<b>CA.4 Identify and agree on the roles and responsibilities of regional organisations and individual land managers.</b>						
CA 4.1	Appropriate officers to facilitate the communication of biosecurity management functions across stakeholders and act as a secretariat for region-wide biosecurity management governance arrangements.	Lead roles initiated.	CY NRM, CY LGs, BQ, NAQS	Ongoing	Absorbed	Year 1 - 2
CA 4.2	Agreement reached by partners/stakeholders on respective roles and responsibilities in biosecurity management in Cape York.	Partners/stakeholders agreed on respective roles and responsibilities.	CY NRM, CY LGs, BQ, NAQS	Ongoing	Absorbed	Year 1 – 2 Priority
<b>CA.5 Ensure Cape York species specific management plans and strategies are contemporary.</b>						
CA 5.1	Review the Cape York Peninsula & Far North Queensland Gamba Grass Management Plan	Management Plan reviewed.	CY NRM, FNQROC	Commence Year 1	Not funded	Year 1 – 2 Priority
CA 5.2	Review the Cape York Peninsula Feral Pig Management plan 2006-2009	Management Plan reviewed.	CY NRM	Commence Year 1	Not funded	Year 1 – 2 Priority

## Cape York Peninsula Regional Biosecurity Plan 2016 - 2021

Outcome 2: Build the KNOWLEDGE and SKILLS of Cape York communities to respond to weeds, pest animals and plant and pest animal diseases risks.

Strategy Reference No.	Implementation Actions	How will Success be Measured	Who is Involved	Timeframe	Resourcing	Action Status
<b>KS.1 Collaboratively develop materials and methods to raise awareness of biosecurity issues affecting Cape York's economy, environment and communities.</b>						
KS 1.1	Organise displays and events to raise awareness of weeds and pest animals including Weedbuster Week, field days, workshops and forums, free tree giveaways programs, World Environment Day activities etc.	Delivery of a number of environmental events and activities across the region.	CY NRM, CY LGs	On-going	Absorbed	Partially underway on irregular basis
KS 1.2	Incorporate biosecurity management information into general information resources where possible including information about legal obligations.	Incorporation of biosecurity management information into a range to local communication tools e.g. website, newsletters, community meetings etc. Weed information disseminated.	BQ, CY NRM, CY LGs	On-going	Absorbed	Underway (CSC and BQ) but not in all LGs
KS 1.3	Develop species specific communication and education material and conduct targeted communication and education programs to engage island communities in supporting management of infestations	Up to date species specific communication and education materials available and easily accessible to island communities.	All	Ongoing	Absorbed	Not started
<b>KS 2 Distribute relevant biosecurity information, tools and knowledge to meet the needs of Cape York Peninsula local governments and communities.</b>						
KS 2.1	Produce a calendar of weed flowering and seeding, seasonal pest animal behaviour and other seasonal aspects of pest management.	Calendar for the region developed.	All	Year 1-2	Year 1-2 Not funded	Not started
KS 2.2	Produce information resources about the impacts of pests, how pests are dispersed and other topics.	Up to date resources available resources easily accessible.	BQ,	On-going	Absorbed	Underway
KS 2.3	Produce fact sheets and other publications as required.	Up to date resources available and accessible.	BQ,	Ongoing	Absorbed	Underway
KS 2.4	Produce maps indicating distribution, extent and densities of prohibited, restricted and identified priority environmental weeds for Cape York Peninsula.	Maps updated progressively using existing mapping software.	CY NRM	Ongoing	Absorbed	Underway
KS 2.5	Collect information on the traditional use of weeds.	Traditional knowledge of the use of weeds collected and shared.	CY NRM, CY LGs, Indigenous land and Sea rangers	Ongoing	Absorbed	Underway

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KS.3 Train relevant local government officers, community groups and Indigenous Land and Sea Rangers in pest identification and best practice management including chemical baiting techniques, Chemcert techniques, pest animal trapping and survey methodologies.						
KS 3.1	Provide access to accredited training, workshops, conferences and forums.	Accredited training available through existing programs and networks.	CY NRM, CY LGs	Ongoing	Absorbed	Underway
KS 3.2	Council officers and Land and Sea rangers with on ground pest management roles obtain and maintain licenses and accreditations applicable to their duties.	Licenses obtained by officers include ACDC, Humane Destruction, Manual of uniform traffic control devices, Occupational Health and Safety, Senior First Aid, Queensland Drivers License, Authorised Officer, Vertebrate Pesticide.	CY NRM, CY LGs	Ongoing	Absorbed	Underway
KS 3.3	Conduct workshops and training to build capacity of Council officers and rangers in facilitation, community engagement; pest ID, particularly in uncommon species and species that are not currently known to occur but have the potential to occur in Cape York.	Workshops and training available through existing programs such as Cape York Weeds and Feral Animals Incorporated, Landcare, National Aquatic Weed Management Group. Annual pest plant/animal workshops held.	CY NRM, CY LGs, CYWFAI, BQ, NAQS	Ongoing	Absorbed	Year 1 – 2 priority
KS 3.4	Provide compliance training for authorised officers.	Identified officers have competencies updated.	BQ, CY LGs	Ongoing	Absorbed	
KS 3.5	Build capacity of all field personnel to identify and respond to new pest incursions.	Training opportunities available for rangers and Council officers	CY NRM, CY LGs, DEHP, DPM&C	Ongoing	Absorbed	Underway
KS.4 Adopt innovative ways to motivate Cape York communities to actively participate in biosecurity management.						
KS 4.1	Promote participation in community based pest management activities.	Participation increased in existing programs such as Land for Wildlife, community group activities, etc.	All	All	Promotion absorbed. Further funding required to increase participation	Year 2
KS 4.2	Provide support to community groups that undertake biosecurity management activities.	Groups supported by CY NRM and LGs through programs i.e. grants programs.	CY NRM, CY LGs	Year 2	Funded through grants program	Underway
KS 4.3	Provide opportunities for community participation in research and data collection activities by taking traditional owners and land managers on country.	Research and data collection undertaken by a number of stakeholders through existing CY NRM programs.	CY NRM, NAQS	Year 2	Absorbed	Underway

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Outcome 3: PREVENT weeds, pest animals and plant and animal diseases establishing in and/or spreading to Cape York Peninsula.

Strategy Reference No.	Implementation Actions	How will Success be Measured	Who is Involved	Timeframe	Resourcing	Action Status
<b>P.1 Ensure that bulk materials and machinery entering the Cape are free from weed seeds.</b>						
P 1.1	Adopt biosecurity threat prevention protocols, develop and require hygiene certificates for at risk providers and support their adoption for the purpose of preventing introduction into Cape York (as per action P 1.2).	Weed prevention protocols available and adopted.	BQ, CY NRM, CY LGs	Year 1	Absorbed	Not started
P 1.2	Require Hygiene Certificates as a standard clause in tender and procurement documents by infrastructure providers (ie. local governments, CY NRM, government agencies).	All tender documents relating to relating to high biosecurity risk activities compulsorily require Hygiene certificates.	CY NRM, CY LGs, government agencies	Year 1	Absorbed	Not started
P 1.3	Require Hygiene Certificates as a standard condition of RNTBC and Land Trust approvals for development activities (including bulk building materials, machinery and equipment) on Aboriginal managed lands.	All RNTBCs and Land Trust approvals for development activities on Aboriginal managed lands require Hygiene certificates.	RNTBCs and Land Trusts	Year 1	Absorbed	Not started
P 1.4	Use biosecurity hygiene declarations where required.	Operational protocols are in place. Biosecurity hygiene declarations Issued for at risk activities.	BQ, CY LGs	Year 1	Absorbed	Not started
<b>P.2 Ensure vehicles and machinery travelling into, around and from Cape York are free from weeds seeds from species targeted for containment/prevention.</b>						
P 2.1	Adopt biosecurity threat prevention protocols and support their adoption by all stakeholders.	Weed prevention protocols available and adopted.	All	As required	Absorbed	Not started
P 2.2	Advocate for machinery and vehicle wash down facilities to be constructed and promote their use.	Wash down facilities constructed and used by all vehicles and machinery.	CY NRM, CY LGs	Year 1	Not Funded	Not started
P 2.3	Conduct inspections on machinery, equipment and vehicles accessing Aboriginal communities and other Cape York communities where agreed.	Biosecurity officers and Council officers inspect machinery, equipment and vehicles on arrival and departure.	CY NRM, CY LGs	As required	Absorbed	Not started
<b>P.3 Continue surveillance activities through on-going weed and pest animal surveys and research.</b>						
P 3.1	Conduct biosecurity monitoring and survey programs to monitor compliance and map the occurrence of invasive biosecurity matters.	Ongoing compliance, monitoring and surveys undertaken.	BQ, CY NRM, CY LGs	On-going	Absorbed	Underway
P 3.2	Conduct annual inspections of high risk weed infestation areas including roadsides, borrow pits and infrastructure easements.	Annual inspections undertaken in high risk areas.	BQ, NAQS, CY NRM, CY LGs,	On-going	Absorbed	Underway

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			property owners			
P 3.3	Monitor changes in prevalence of general environmental pests for evidence of sleeper weeds becoming problematic.	Continual monitoring and action as required.	All	Ongoing	Absorbed	Underway
P 3.4	Indigenous Land and Sea rangers and Councils provided with weed survey reports after NAQS survey programs finalized.	Indigenous Land and Sea rangers and Council officers have up to date weed survey information to inform weed management prioritisation	BQ, NAQS, CY NRM, CY LGs	Ongoing	Absorbed	Not started
P 3.5	Indigenous Land and Sea rangers accompany NAQS survey officers to gain weed identification skills.	Indigenous Land and Sea rangers have improved weed identification and survey skills. NAQS officers notify rangers of upcoming survey visits.	BQ, NAQS, CY NRM, CY LGs	Ongoing	Absorbed	Underway but inconsistent
<b>P.4 Keep areas clean from biosecurity risks to maintain healthy environments.</b>						
P 4.1	Discourage illegal dumping through an awareness program.	A strategy for discouraging illegal dumping developed and implemented.	CYBAF, CY LGs	Year 1	Absorbed	Not started
P 4.2	Indigenous Land and Sea rangers and Council officers regularly undertake land patrols to monitor biosecurity incursions in weed free areas.	No new weed incursions occur.	BQ, NAQS, CY NRM, CY LGs, ILSRs	Ongoing	Absorbed	Underway but inconsistent
P 4.3	Consider biosecurity management issues during the planning and delivery of major development and infrastructure projects (includes construction and infrastructure etc.).	Advice provided to development assessment and Council capital works officers. Advice provided on Queensland Government major projects, Incorporate pest information into officers induction programs.	State and Australian government departments, CY LGs	Year 1	Absorbed	Underway in CSC but inconsistent elsewhere
P 4.4	Introduce and enforce contractual and RNTBCs approval obligations for preventing introduction and spread of biosecurity risks during construction and maintenance activities.	Obligations built into new contractor tender arrangements and auditing procedures.	All	Year 1	Absorbed	Not started
P 4.5	Develop and implement a process for reacting to notifications of new biosecurity risks.	Response is based on biosecurity risk.	CYBAF, BQ, CY LGs	Year 1-2	Absorbed	Not started
P 4.6	Cape York local governments to ensure that transport, machinery contractors and bulk material suppliers adopt biosecurity prevention strategies to keep pests from reaching Cape York to ensure compliance with the <i>Biosecurity Act 2014</i> .	No new weeds or pest animals are detected in Cape York.	BQ, CY LGs, Transport, machinery and bulk materials providers.	Year 1	Not funded	Not started

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Outcome 4: CONTROL existing and limit the spread of new and emerging weed infestations and pest animal populations.

Strategy Reference No.	Implementation Actions	How will Success be Measured	Who is Involved	Timeframe	Resourcing	Action Status
C.1 Support the implementation of local government biosecurity management plans.						
C 1.1	Undertake a coordinated approach to biosecurity management in partnership with Cape York communities to target specific species.	The establishment and implementation of targeted programs in partnership with the Community.	CY NRM, CY LGs	On-going	Absorbed	Underway
C 1.2	Continue to support Cape York Land and Sea Ranger groups and Council officers to implement biosecurity management plans by providing adequate resources.	Rangers and Council officers implement biosecurity management plans.	CY NRM, CY LGs, Working on Country Program, Q'ld Indigenous Land and Sea Ranger Program	On-going	Absorbed	Underway
C.2 Manage High Priority weeds and pest animals identified in Section 7.3 of the Plan and various Cape York Local Government Biosecurity Management Plans.						
C 2.1	Indigenous Land and Sea rangers and Council officers undertake a coordinated approach with their communities and local government areas to target specific priority biosecurity risks identified in Section 7.3 of the Plan (e.g. weed and pest animal programs).	The establishment of targeted programs in partnership with local governments, Indigenous land and sea Ranger groups and the Community.	CY NRM, CY LGs, Indigenous land and sea ranger groups	On-going	Absorbed	Underway
C 2.2	Control biosecurity risks in and around Cape York communities and surrounding disturbed areas and roadsides.	Active biosecurity management being implemented.	CY NRM, CY LGs, Indigenous land and sea ranger groups, Cape York communities, land managers and residents	On-going	Absorbed	Underway

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C.3 Target new and emerging weeds and pest animals on detection to limit their establishment and spread.						
C 3.1	Indigenous Land and Sea rangers and Council officers manage emerging biosecurity risks in a timely manner to limit establishment and spread.	Emerging biosecurity risks managed.	CY NRM, CY LGs	On-going	Absorbed	Not started
C.4 Develop and implement compliance obligations in accordance with the provisions of the <i>Biosecurity Act 2014</i> .						
C 4.1	Ensure local government officers have the support to implement undertake compliance duties.	Local government officers trained and supported to undertake compliance duties	CY LGs, BQ	Year 1	Absorbed	Underway
C 4.2	Develop and implement compliance policies, procedures and programs.	Ongoing compliance procedures enforced.	CY LGs	Year 1	Absorbed	Underway BQ has developed draft SOPs for AOs
C 4.3	Develop and maintain a register of enforcement activities pursuant to <i>Biosecurity Act 2014</i> requirements.	Register maintained as per <i>Biosecurity Act 2014</i> requirements.	CY LGs	Year 1	Absorbed	Not started

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Outcome 5: MONITOR actions, EVALUATE progress and REPORT outcomes on the implementation of the Plan.

Strategy Reference No.	Implementation Actions	Success Indicator	Stakeholders	Timeframe	Resourcing	Action Status
<b>MER.1 Utilise a standardised system for identifying and mapping the location of pest species.</b>						
MER 1.1	Promote a standardised system for collection, analysis and sharing of weed distribution and management data.	Standardised weed mapping system promoted.	CYBAF, BQ, CY NRM	Ongoing	Absorbed	Underway
MER 1.2	Standardised system for collection, analysis and sharing of weed distribution and management data implemented across Cape York.	Standardised weed mapping system implemented.	CYBAF, BQ, CY NRM	Ongoing	Absorbed	Underway
<b>MER.2 Map weed infestations and survey pest animal populations and habitat extent annually as part of Local Government Biosecurity Management Plan and Regional Biosecurity Plan implementation and Indigenous Land and Sea Ranger Workplans.</b>						
MER 2.1	Establish a regular mapping and monitoring program for weeds, pest animals and plant and animal diseases.	Pest mapping regularly undertaken as part of biosecurity planning reviews and ranger annual work plan reviews. Treated areas monitored and recorded for pest reoccurrence.	CY NRM, CY LGs, Indigenous Land and Sea Ranger groups	Ongoing	Absorbed by Indigenous Land and Sea Ranger groups. LGs not funded.	Underway in some local government areas.
<b>MER.3 Monitor and evaluate the effectiveness of treatment techniques to ensure optimum management outcomes inform future management activities.</b>						
MER 3.1	Continue to evolve and adopt emerging best practice biosecurity management techniques.	Best practice techniques adopted.	CY NRM, CY LGs	Ongoing	Absorbed	Underway
<b>MER.4 Evaluate progress on the implementation of the Plan and Local Government Biosecurity Management Plans.</b>						
MER 4.1	CY NRM initiates an annual evaluation of Plan implementation.	Review undertaken and report prepared.	BQ, CY NRM	Annually	Absorbed	Not started
MER 4.2	Biosecurity management is conducted using adaptive management approach.	Landscape approach used in managing biosecurity risks.	All	Ongoing	Absorbed	Underway
<b>MER.5 Provide regular reports showing progress against Plan's implementation strategies and submit to the relevant State department (e.g. Biosecurity Queensland), all stakeholders and funding bodies.</b>						
MER 5.1	Develop and distribute to key stakeholders an annual report on the status of strategy implementation and share the latest scientific and legislative updates and partnership projects etc.	Annual biosecurity implementation report developed and distributed to stakeholders.	CY NRM	Annually	Absorbed	Not started

### 5.0 Monitoring, Evaluation and Reporting

Monitoring, evaluation, reporting and implementation are the four components of adaptive management. Adaptive management is an on-going process that should be utilised wherever appropriate to do so, especially where there is uncertainty regarding whether an intended outcome, strategy and/or management action will achieve the desired biosecurity management objective or techniques.

Adaptive management underpins the systematic approach adopted in this Plan to achieve the vision and mission through implementing the strategies and associated actions, learning through evaluation and adapting desired outcomes, strategies and actions in order to successfully implement the Plan in an uncertain environment.

#### 5.1 Plan Monitoring

Monitoring is necessary to evaluate the level of biosecurity impacts, refine priorities for management and target biosecurity management with greatest effect. Ongoing monitoring and evaluation of biosecurity management is critical in determining the effectiveness of management and providing information to enable programs to be continually adapted and improved to achieve the desired outcomes.

All organisations, communities and individuals involved in biosecurity management in Cape York have a role in monitoring progress on implementation. The Cape-wide biosecurity management governance arrangements will provide the vehicle for the coordination and reporting of monitoring findings to provide a complete picture on the results of Plan implementation.

Monitoring and reporting progress of actions against stated measures of success provides valuable information to enable evaluation of success and outcomes achieved. Monitoring can happen in a number of ways including control work progress reports, on-ground inspections of progress and community and organisational feedback. It is intended that reporting on the findings of monitoring Plan implementation actions will be widely distributed through a suite of communication mechanisms.

#### 5.2 Plan Evaluation

The success of Plan implementation will be evaluated on the achievement of outcomes for each of the five outcomes and their respective strategies and actions including implementation of the respective local government biosecurity management plans and land and sea ranger plans (where they exist) to determine the achievement of sustainable on-ground outcomes. The achievement of outcomes will be reported by the responsible organisation/s as part of regular Plan implementation reporting arrangements. Evaluation is also included as a separate strategy in Goal 5 (Strategy MER. 5.4).

Evaluation to determine the success or otherwise of the implementation of strategies and actions will be against the following criteria:

- *Effectiveness* – Did the strategy/action achieve what was intended to be achieved?
- *Efficiency* – Was the best use of time and resources made?
- *Appropriateness* – Was the approach the right way? Was there something else that should have been done that would have achieved a better result?
- *Impact* – What difference did implementing the strategy/action make? What actual changes occurred?
- *Sustainability* – What mechanisms were initiated so outcomes would be achieved, even if funding stopped? (E.g. motivating/building capacity of Cape York communities and land managers to continue activities).

It is the responsibility of the Cape-wide biosecurity management governance arrangement to review the evaluations provided for each of the Implementation Plan strategies and actions in the Plan including those listed in local government pest management plans and land and sea ranger plans to determine the level to which the desired outcomes are being achieved. Information from this annual evaluation will be included in the annual report to partner organisations, Cape York Peninsula communities, Biosecurity Queensland and funding providers.

### 5.3 Reporting Progress

Reporting implementation progress will be a permanent agenda item with all participation organisations having a role in providing updates on their contributions to implementing actions.

Under the *Biosecurity Act 2014*, local governments are required by legislation to submit their reporting to the Minister annually. A concise annual report summarising the status of the implementation of this strategy together with a review of the outcomes achieved to date will be developed and provided to the Queensland government (Biosecurity Queensland), stakeholders and relevant funding bodies on an annual basis. The report will be contributed to by member organisations and prepared by CY NRM Ltd.

### 5.4 Review/Revision of the Plan

The landscape within which the Plan operates is dynamic and it is anticipated that priorities will vary with changing pest distributions and knowledge of population ecology. It is imperative that the Plan be adaptable enough to respond to any changes.

For this reason it is intended that this Plan be a living document that is reviewed annually to ensure that implementation actions continue to accurately reflect community aspirations, current knowledge of biosecurity risks and new government legislative or policy changes, priorities and funding programs and if necessary, updated.

The Cape-wide biosecurity management governance arrangement will facilitate the annual review of the Plan based on outcomes from monitoring and evaluating implementation progress, including:

- reviewing progress on implementing the priority actions for the year;
- based on the findings of the review, prioritising actions for the out years (if necessary); and
- revising the Plan if significant reprioritisation occurs (based on evaluation of the previous year's implementation plan progress, any emerging biosecurity issues and/or any new funding opportunities).

Based on this review and if deemed necessary, the Plan will be updated. Any amendments to the *Biosecurity Act 2014*, the Queensland Pest Animal Strategy, Queensland Weeds Strategy and/or the Queensland Weed Seed Prevention Strategy will also need to be reflected in the updated Plan to ensure legislative compliance and/or strategy consistency.

### 5.5 Development of New Plan

A comprehensive review of the Plan, including evaluation of the success of the Plan implementation will be undertaken at least six months before this Plan ceases to have effect. Arrangements for development of a new plan will be made to ensure no time gap between implementation of successive plans.

Results from monitoring and evaluating the actions undertaken in the 5 years of implementation of this Plan will be incorporated into the new document.

## PART TWO

### 6.0 Why the Need for a Regional Biosecurity Plan

Weeds and pest animals pose a major threat to the economic, environmental, social and cultural values throughout Cape York Peninsula and potentially to adjoining regions (including Torres Strait and Papua New Guinea) should they make their way through Cape York Peninsula.

Weed infestations may affect biodiversity by displacing native plants and providing habitat that is unsuitable for some native fauna. They may contribute to changes in fire regimes, reduce groundcover and lead to increased risk of erosion. Some weeds are toxic and have the potential to adversely affect human and animal health. Aquatic weeds can affect flows and ecological function in streams and wetlands and detract from conservation and recreational values. Weed infestations can also adversely impact food production efforts.

Pest animals may destroy native vegetation, kill or injure native fauna, disturb soil, carry diseases, make areas more prone to erosion and help to spread weeds. Weeds and pest animals also have the ability to harm the cultural heritage values of the region by degrading sites and places of cultural and spiritual significance and adversely impact on productivity.

Land and sea management has a strong history throughout Cape York Peninsula. It has and continues to underpin Aboriginal culture and will continue to be an integral part of the future of Indigenous peoples in the region. This strong cultural and spiritual connection with land and sea country, while maintaining Aboriginal lore, is central to the way Indigenous communities function. Cape York graziers, horticulturalists and farmers also play a significant role in practising sustainable land management and their on-going contribution to biosecurity management is acknowledged, supported and respected.

### 6.1 What's Happened since the last Regional Pest Management Plan was Developed?

Over the last decade since the development of the Cape York Peninsula Pest Management Plan 2006 – 2011 governments and Cape York land managers have invested significant resources, time and effort in biosecurity management. It is estimated during this time in excess of \$25 M has been directed through a number of State and Australian government environmental and natural resource management programs to managing weeds and pest animals. This investment does not account for the significant investment Cape York local governments have allocated to biosecurity management or the resources land managers on the Cape have contributed.

Through consecutive natural resource management programs, the State and Australian governments have earmarked biosecurity management as a priority environmental issue for Cape York. Investment has been distributed through a range of delivery mechanisms including targeted weed and pest animal programs, direct grants to organisations like catchment and Landcare groups and individual land managers including graziers, horticulturalists, farmers, not for profit community groups and Aboriginal organisations. The governments have also directed funds to increase knowledge and skills of Cape York land managers and targeted biosecurity management through indigenous Land and Sea ranger programs that have matured considerably during the past decade.

The past decade has seen the emergence of Indigenous Land and Sea Ranger groups funded by the State and Australian governments and administratively supported by Aboriginal local governments, Balkanu Aboriginal Corporation, Southern Cape York Catchments and various Aboriginal corporations across the Cape. This has resulted in significant additional resources and personnel contributing to biosecurity management across the Cape.

Cape York NRM intends to showcase programs and projects undertaken over the past decade on the Cape York NRM website. Project case studies will be available for viewing by clicking on the NRM Plan portal and searching through either the Cape York land manager or Maps and Data tabs to view information about showcased projects. Some notable biosecurity management programs and projects that have had significant success resulting in positive economic, environmental and cultural outcomes include:

- Feral Pig Management Program - feral pigs have been a high priority for management since 2000. Cape York Weeds and Feral Animals Program, Cape York Sustainable Futures, Cape York Weeds and Feral Animals Incorporated and Balkanu Aboriginal Corporation initiated feral pig management in various areas across the Cape with great success culling thousands of feral pigs annually during that period.

Since 2013 Western Cape Turtle Threat Management Program has facilitated the coordinated management of feral pig and wild dog predation of turtle nesting sites on the Western Cape. This program has been on-going for the past 3 years in various forms but is now coordinated across the Western Cape by the Western Cape Turtle Threat Abatement Alliance made up of Western Cape indigenous Land and sea ranger groups from Kowanyama in the southern Western Cape to Pajinka in the north. Monitoring of the outcomes of recent management activities has substantiated increased turtle nest hatching rates.

- The original strategic Rubber vine control program, north of the Rubber vine containment line was commenced in 2011 by the Cape York Weeds and Feral Animals Program. The project recommenced in 2014 with a 3 year Rubber Vine Control project established to contain the Rubber vine threat by spraying infestations on the Lukin River at Yarraden Station. This project included 20 days of on-ground control works in conjunction with the Rubber Vine Control project contracted to Wunthulpa Aboriginal Land Trust.

Project activities to date have included:

- Prioritising any new infestation in the Yarraden Station region of the Lukin River.
- Preventing the establishment and spread of new incursions of targeted species by controlling Rubber Vine along the Lukin River area, targeting its source infestation up river and moving systematically down river.
- Working with Cape York NRM, Cape York Weeds and Feral Animals Incorporated, Wunthulpa Aboriginal Land Trust, Ayapathu Rangers and other stakeholders to carry out on ground works.
- Collecting data to update existing mapping for Rubber Vine infestations and control areas.
- The Pormpuraaw Land and Sea Rangers have been managing Parkinsonia for the past 7 years reducing a dense 300 ha infestation down to 8 ha. Current planned activities include surveying previously treated areas for new outbreaks and continuing to manage the remaining infestation. Technical advice and best practice management training was provided by the staff of the Cape York Weeds and Feral Animals Program.

Over the 7 year period a number of control techniques have been trialled and the ranger team has evaluated these techniques to adjust treatment methods and chemical application rates to a point that aerial chemical application is achieving increased success at a more cost effective rate with minimal impact on native vegetation. This approach is being shared with neighbouring ranger groups proposing to undertake Parkinsonia control projects.

- The Temple Bay Pond Apple Project is an on-going project aimed at eradicating Pond apple in the Temple Bay area. The project's initial objective was to build the capacity of Indigenous ranger participants by providing training, mentoring and on-ground control work. This included mapping and surveying of Pond Apple, then starting the removal of the surveyed Pond Apple. Technical advice and best practice management training was provided by the staff of the Cape York Weeds and Feral Animals Program

In 2015 the second stage of this project delivered further capacity building and mentoring to the Wuthathi and Kuku y'au people and the Northern Peninsula Area's Apudthama land and sea rangers, with Pond Apple survey and control within the Temple Bay area. This included on-ground training at Temple Bay, then followed by control of the mapped Pond Apple by the trainees and a map produced.

A total area of 2.34Ha of Pond Apple was surveyed and managed. Further management activities will occur in 2016 to check for regrowth in previously treated areas as well as further control of existing infestations.

- The Wujal Wujal Horse Management Plan was developed as a collaborative project across three local governments with the assistance of Biosecurity Queensland and FNQROC and successfully addressed the feral horse problem in the Bloomfield valley. While wanting to manage the feral horse problem the Wujal Wujal community also wanted to ensure the horses were not destroyed because of their affinity with the animals. A Cape York grazing property agreed to take unwanted animals for use as property horses.
- Construction of a wash-down facility at Lakeland Downs after completing a feasibility study in 2008. The official opening was 17th March 2010. This facility is designed to remove weed seed from wheels of vehicles entering Cape York Peninsula. It was installed to reduce the risk of Parthenium becoming established on the Cape.
- A strategic plan for the control of Gamba Grass was developed by the FNQROC in 2011. The Plan's long term management aim is to reduce the impact of Gamba Grass on the cultural, environmental, social and economic values of Cape York Peninsula and Far North Queensland. The first stage of plan implementation involved reducing spread along key pathways and corridors and to direct systematic management efforts to isolated and high risks infestations, with a core focus on public lands and the road networks of Cape York Peninsula.

Over the past decade several Cape York organisations have fostered coordination and cooperation to best advance biosecurity management.

In March 2004, the Cape York Peninsula Pest Advisory Committee (CYPPAC) decided a restructure was necessary. The restructure was triggered by the cost and administration of meetings, increased interest from non-landowner stakeholders and the need for the committee to expand its interests outside just the Natural Heritage Trust funded project.

The new structure consisted of an expansion of the membership to allow non-landowners to have representation and also including a representative from community groups and the conservation sector. The Terms of Reference were modified to reflect these changes and the expanding role of the group. In recognition of the change in structure and roles the group changed the name to the Cape York Peninsula Pest Management Advisory Group (CYPPMAG).

CYPPMAG operated intermittently since its inception primarily because of fluctuating funding constraints placed on secretariat organisations who traditionally sought funding for their operation. This has generally been the case across Queensland where groups are not self-funded.

Cape York Weeds and Feral Animals Project/Program provided a Cape-wide focus for biosecurity management which progressed on-ground projects, collected weed and pest animal information, raised awareness and facilitated biosecurity planning and development of land manager skills to better manage biosecurity risks.

In more recent times Cape York NRM Ltd was established by the State government as the natural resource management organisation leading natural resource management programs on the Cape, including biosecurity management. With governments' direction emphasis on the different facets of biosecurity management has fluctuated over this period to the extent that funds to bring critical Cape York biosecurity stakeholders together has waxed and waned. Cohesive regional effort has been affected to varying degrees with the reduction of government funds being directed to regional coordination. Albeit this has not resulted in any lack of commitment by individual Cape York organisations to play their part in biosecurity management.

### 7.0 How has the Plan been Developed?

Engagement with Cape York local governments and their communities, Traditional Owners, graziers and other government and research stakeholders to initially inform the development of the Cape York Peninsula

Regional Biosecurity Plan is essential. Receiving feedback and substantiating existing knowledge is critical to gaining community acceptance of the Plan's intended outcomes. Following finalisation of the Plan this acceptance of the intended outcomes, strategies and actions will foster broad involvement in the implementation of the Plan.

This collaborative approach recognises that a range of organisations and individuals need to be informed and involved in biosecurity management. Helping people to understand the key biosecurity issues as identified by the Plan, involving people in biosecurity management using the right techniques and focusing collective energy in the right direction is critical to managing weeds and pest animals in the region.

The preparation of the Plan has involved a number of key information collection processes. These have included an extensive literature review, a range of targeted consultation processes including one on one interviews with all Cape York local governments, government agency and regional organisations' officers and community mapping and prioritisation workshops with Cape York Indigenous local governments, their community members and land and sea ranger groups.

The review and synthesis of the information collected during the various consultation processes and in findings from the literature review in preparing the Plan has identified a raft of key findings that shape the priority outcomes and strategies contained in Section 6. These findings are detailed below.

### 7.1 Phase One Consultation Findings

All local government, Indigenous land and sea ranger, Traditional Owner and land manager representatives consulted during the first round of meetings supported the development of the Plan including the approach proposed for future consultation and prioritisation of regional pest management issues.

Meeting participants provided advice on other relevant parties to involve in future consultation meetings including Traditional Owners and their representative organisations, Indigenous land and sea ranger groups and other land managers (National Parks rangers, graziers, etc).

There was consensus that the Plan was not intended to circumvent the need for local governments to develop stand-alone biosecurity plans for their respective local government areas and these documents be acknowledged in the Plan. Three Aboriginal Shire Councils (Hopevale, Lockhart River and Aurukun) accepted the offer of assistance for the development of a local government biosecurity plan for their respective areas that met legislative obligations as part of the development of the Plan. All 3 Aboriginal Shire Councils requested their biosecurity plans be developed in collaboration with ranger groups and Traditional Owners.

There was widespread support for an additional consultation phase prior to the draft Plan being developed that focussed on collating weed locational data and mapping information to inform the prioritisation process.

The suggestion of a "clustering" approach to prioritise biosecurity management issues was widely supported. Clusters based on either specific biosecurity issues and/or geographically bounded, for example along roadsides and linear development corridors like Telstra, Energex and Ergon infrastructure corridors would be more meaningful to the Cape community as the environmental, land use and social diversity makes a Cape-wide prioritisation process problematic to engender meaningful community ownership and subsequent involvement in implementing cape-wide pest management priorities.

Support for organisations to work cooperatively to achieve biosecurity management outcomes is considered critical to ensure the plan is successfully implemented. To support cooperative implementation two key factors were identified:

- clearly articulated and agreed roles and responsibilities of all partners involved in biosecurity management; and
- reinvigoration of Cape-wide representative governance arrangements to coordinate and monitor implementation of the Plan. With the focus of the governance arrangements to:

- make annual decisions on where and what funds target in line with the priorities detailed in the Plan;
- foster cooperation amongst organisations with biosecurity obligations and encourage efficiencies through joint projects and resource sharing;
- act as the data warehouse and ensure data storage has the capacity to “talk” to other biosecurity management data systems (eg. Pest Central, local governments, and community groups);
- ensure access to data is available;
- monitoring, evaluating and reporting progress on the implementation of the Plan.

Conversations about regional biosecurity issues fell under 4 themes – prevention; management (through control and/or containment, compliance enforcement); data/information access, sharing and storage; and implementation efficiencies (through coordination, training to build land manager and organisational capacity and joint on-ground biosecurity management activities).

### 7.2 Mapping and Prioritisation Workshops Findings

Mapping and prioritisation workshops have been conducted with all Cape York local governments either as part of the development of this Plan or independently initiated by local governments progressing their respective biosecurity management plans. These workshops were also attended by Indigenous land and sea ranger representatives, community members and government agencies officers from Biosecurity Queensland, National Parks and Commonwealth Department of Agriculture and Water Resources.

The workshop format included a 3 stage process involving weed mapping of each priority species, a weed and pest animal prioritisation process and determination of the preferred management approach for each species indicated on maps. A summary of the mapping and prioritisation process is included as Appendix 1. This provides each local government with mapped weed and pest animal priorities and the best approach for management. The results of the workshops also informs the land and sea ranger work plans. A list of the priority weed and pest animal species for each local government area is included as Appendix 2.

The information gathered from each workshop contributes to the regional perspective for priority weed and pest animal species and informs the selected priority weeds and pest animals identified in Section 7.3 of the Plan.

### 7.3 Literature Review Findings

There is a comprehensive suite of literature available to inform the development of the Plan. Relevant State Biosecurity legislation and National, State and regional plans and strategies about regional development, natural resource management and pest management provide guidance material on the context and suggested content of the Plan including legislative requirements, guiding principles, goals, management approaches and implementation strategies.

The State legislation and the Duff, N. and Weir, J.K. report “*Weeds and Native Title: Law and Assumption, 2013*” both emphasise local governments’ compliance role in biosecurity management. This role needs to be recognised in the Plan as a key strategy in addressing biosecurity issues in the region.

From a Cape York context annual pest distribution and animal and plant health surveillance data, biosecurity assessments, local government pest management plans and Working on Country – Ranger Plans identify the biosecurity issues affecting much of Cape York and provide direction on actions to address these issues.

Some weed species have traditional uses for Aboriginal people, for example Candle bush (*Senna alata*) is used to treat ringworm. The traditional use and rate of use of weed species has not been extensively documented. The collection of traditional use information needs to be included in the Plan as a priority action.

### 8.0 How the Plan aligns with Legislation, Strategies & Guidelines

The Plan complements a suite of national strategies, that provide strategic frameworks and establishes consistent guidelines for all parties, identifying priorities for pest management across the nation with the aim of minimising the impact of pests on Australia's environmental, economic, social and cultural assets and values. These strategies, along with relevant State, regional and local documents are outlined in **Table 1**.

The national strategies are a vital part of Australia's integrated approach to national biosecurity and complement other existing and new national strategies for invasive species, such as those for terrestrial vertebrate and marine pests. These documents can be found at <http://www.environment.gov.au>.

At the state level, the *Land Protection (Pest and Stock Route Management) Act 2002* will be superseded by the *Biosecurity Act 2014* (the Act) on 1 July 2016. This new Act will provide the primary legislative base for the management of particular pests on land throughout Queensland. For the purposes of this Plan the provisions of the *Biosecurity Act 2014* will be referred to outline key stakeholders' roles and responsibilities and pertinent legislative provisions relating to biosecurity management.

These new Queensland biosecurity laws will make managing biosecurity risks everyone's responsibility for biosecurity risks and threats under their control. Under the Act, individuals and organisations whose activities pose a biosecurity risk will have greater legal responsibility for managing them. This general biosecurity obligation (GBO) means they must take all reasonable steps to ensure they do not spread a pest, disease or contaminant. Further information about the general biosecurity obligation is available at [Biosecurity Act 2014](#).

The legislation introduces a biosecurity compliance, management and planning framework for Queensland that involves State strategies, local government area plans and state-wide plans for state-controlled land. A key principle the Act advocates is that biosecurity management plans at local, regional, state and national levels are consistent with each other.

While there is no legislative requirement for regional biosecurity management strategies, the *Biosecurity Act 2014* recognises that 2 or more local governments can develop and adopt the same biosecurity plan. A number of regional organisations in Queensland have developed regional documents primarily to foster consistency, cooperation and coordination across local areas. Given this intent, the Cape York Peninsula Regional Biosecurity Plan has been developed to align with the objectives identified by the legislation, strategies and guidelines detailed in **Table 1**.

The Act also requires Local Governments to develop Biosecurity Management Plans and provide annual reports to the State Government detailing progress on implementing these plans. It is recognised that this Plan will not obviate this legislative requirement or the implementation of respective local government biosecurity plans. This recognition provides the foundation for the integration of pest management planning, management and implementation activities through collaborative arrangements amongst organisations with responsibilities for biosecurity management across Cape York Peninsula.

A raft of State strategies, guidelines and information documents underpin this legislative framework. These documents can be found at <http://www.daff.qld.gov.au>.

The Cape York Peninsula Regional Natural Resource Management Plan is a whole-of-region plan to guide the sustainable management and use of Cape York Peninsula's natural resources through practical approaches for improving the ways regional organisations work together to support the region and its people. Integration of biosecurity planning and management activities identified in the Plan is the realisation of the intent of the Regional NRM Plan. The Regional NRM Plan can be downloaded at <http://plan.capeyorknrm.com.au/>.

At the local government level, Cook, Pormpuraaw and Kowanyama local governments have a current Pest Management Plan all of which are currently being reviewed. Of the remaining 7 local governments, the NPARC and Napranum local governments have prepared draft Pest Management Plans, Aurukun, Hope Vale, Lockhart River and Wujal Wujal's Pest Management Plans are currently being reviewed, and Mapoon and local

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government's Pest Management Plan is out of date but anticipated to be reviewed in 2016. Some of these documents are on their respective local governments' websites.

The context for regional biosecurity management planning is shown in Table 1.

**Table 1 - Context for Cape York Peninsula Regional Biosecurity Management Plan**

SCALE	RESOURCE MANAGEMENT	BIOSECURITY MANAGEMENT	PEST SPECIES
National	Caring for our Country Program. Working on Country Ranger Program. National Landcare Program. National Strategy for the Conservation of Australia's Biological Diversity.	Australian Weeds Strategy (2006).  Australian Pest Animal Strategy (2007).	National programs for specific weeds e.g. National Lantana Eradication Program.  Weeds of National Significance (WoNS).
State	Queensland Biosecurity Strategy 2009-2014. State Natural Resource Management Investment Program. State Indigenous Land and Sea Ranger Program.	The Queensland Weed Spread Prevention Strategy (2008).  Queensland Weed and Pest Animal Strategy 2016-2020.  Land Protection (Pest and Stock Route Management) Act 2002. Biosecurity Act 2014.	Exotic invasive plant and animal species, weedy native woody plants and aquatic species  Invasive biosecurity matters including prohibited and restricted matters identifying weeds and pest animals
Regional	Cape York Regional Plan  Cape York Regional NRM Plan	Cape York Peninsula Regional Pest Management Plan 2006-2011  Cape York Peninsula and Far North Queensland Gamba Grass and Pond Apple Management Plans	Regional priorities – generally a subset of prohibited and restricted matters together with non-declared species
Local	Local government corporate plans Local government planning schemes Local government community plans	CSC Pest Management Plan 2012 – 2016 Pormpuraaw Aboriginal Shire Council Pest Management Plan 2011 - 2015 Draft NPARC Pest Management Plan 2013 – 2018	Invasive biosecurity matters - prohibited and restricted matters pest plants and animals Local infestations of non-declared plants and new invasions of potential weedy species
Property	Property Management Plans Sub-catchment Biodiversity Management Plans	Property Biosecurity Management Plans	Prohibited and Restricted Invasive Biosecurity matter (legislative requirement) in Regional, Local Gov't and PPMPs; and priority non-declared species at a property level
Individuals	General duty of care		Biosecurity Act 2014 – GBO to take all reasonable steps to ensure they do not spread a pest, disease or contaminant.

## 9.0 Achieving Best Practice in Biosecurity Management

The guiding principles listed below underpin the development and implementation of the Plan and guide the achievement of the Plan's vision and mission.

- Weeds and pest animals cause unacceptable damage to the natural, economic and cultural assets and values of Cape York Peninsula.
- Empowering Cape York Peninsula communities and land managers to protect and manage key cultural, environmental and economic assets and values from biosecurity risks for future generations is a priority.
- Respect and promote Aboriginal lore and native title rights and interests, and incorporate Traditional Ecological Knowledge into biosecurity management projects is a fundamental requirement.
- Prioritisation of Cape York Peninsula's regional biosecurity management issues and actions is driven by community involvement in decision making.
- Prevention and early intervention are the most cost effective biosecurity management approaches.
- Collaborative and coordinated biosecurity management will result in increased ownership of shared on-ground outcomes.
- Effective biosecurity management will be enhanced through building and sharing western science and traditional ecological knowledge with and skills development of Cape York Peninsula communities and land managers.

## 11.0 References

Barbara Waterhouse, Biosecurity, Department of Agriculture and Water Resources pers. comm. 2015

Bohnet I.C., Hill R., Turton S.M., Bell R., Hilbert D.W., Hinchley D., Pressey R.L., Rainbird J., Standley P.-M., Cvitanovic C., Crowley G., Curnock M., Dale, Lyons P., Moran, Pert P.L. (2013). [Supporting Regional Natural Resource Management \(NRM\) Organisations to update their NRM plans for adaptation to climate change](#). 20th International Congress on Modelling and Simulation, Adelaide, Australia, 1–6 December 2013.

Cape York NRM Ltd, *Cape York Peninsula Regional Natural Resource Management Plan 2009-2029*, <http://plan.capeyorknrm.com.au/>.

Cook Shire Council, "*Cook Shire Pest Management Plan 2012-2016*"

Corey Bell, Biosecurity Queensland, Department of Agriculture and Fisheries pers. comm. 2015

Department of Agriculture and Fisheries, *Land Protection (Pest and Stock Route Management) Act 2002*

Department of Agriculture and Fisheries, Biosecurity Act 2014, <https://www.daf.qld.gov.au/biosecurity/about-biosecurity/Biosecurity-Act-2014/Local-government-weed-and-pest-management/local-government-and-the-biosecurity-act-2014>

(Department of Environment, 'Policies and Programs', *Weeds in Australia*, 2012, <http://www.weeds.gov.au/government/policies.html>).

Department of Environment, Australian weeds strategy: A national approach for weed management in Australia, 2007, <http://www.weeds.gov.au/publications/strategies/weed-strategy.html>

Duff, N. and Weir, J.K., "*Weeds and Native Title: Law and Assumption*, 2013. RIRDC Publication No. 13/078.

Far North Queensland Regional Organisation of Councils. *Pest Management Planning - Local Government Pest assessment, prioritisation and planning framework*. Appendix to the Far North Queensland Local Government Regional Pest Management Strategy 2010-15. <http://www.fnqroc.qld.gov.au/regional-programs/natural-asset-management> Version 1.6. Cape York edition (July 2015).

Hopevale Pest Management Group (April 2003), "*Pest Management plan for the Hopevale Deed of Grant in Trust Lands*".

Johanna Karem, Cape York NRM Ltd pers. comm. 2015

Luke Preece, Cape York NRM Ltd pers. comm. 2015

Lynch A.J.J., Fell D.G. & McIntyre-Tamwoy S. (2010) [\*Incorporating Indigenous values with 'Western' conservation values in sustainable biodiversity management\*](#). Australasian Journal of Environmental Management, Volume 17, Issue 4, 244-255.

McIntyre-Tamwoy, S., Fuary, M., and Buhrich, A. (2013). *Understanding climate, adapting to change: Indigenous cultural values and climate change impacts in North Queensland*. Local Environment 18 (1), 91-109.

Murphy, H.T., Fletcher, C.S., Grice, A.C., Clarkson, J., Westcott, D.A. (2014) *Eradication versus containment strategies for invasive species management*. Report to the National Environmental Research Program. Reef and Rainforest Research Centre Limited, Cairns (21pp.).

Northern Peninsula Area Regional Council (NPARC) *"Draft Northern Peninsula Area Pest Management Plan 2014-2016"*

Peta Standley, Cape York NRM Ltd pers. comm. 2015

Torres Strait Regional Authority, (2008) *"Torres Strait and Northern Peninsula Regional Plan 2009-2029"*

Trevor Meldrum, Cape York Weeds and Feral Animals Incorporated pers. comm. 2016

Waterhouse B.M. (2003). [\*Know your enemy: recent records of potentially serious weeds in northern Australia, Papua New Guinea and Papua \(Indonesia\)\*](#). Telopea, Volume 10, Issue 1, 477-485.

## APPENDIX 1

### Local Government Priority Weeds

PRIORITY WEEDS		AURUKUN	COOK *	HOPEVALE	KOWANYAMA	LOCKHART RIVER	MAPOON	NAPRANUM	NORTHERN PENINSULA AREA	PORMPURAAW	WEIPA TOWN AUTHORITY	WUJAL WUJAL #	Hyperlink to Fact Sheet
Common name	Scientific name												
<b>Restricted Matters (<i>Biosecurity Act 2014</i>)</b>													
African Tulip Tree	<i>Spathodea campanulata</i>		L										<a href="#">African Tulip Tree</a>
American Rats Tail Grass	<i>Sporobolus jacquemontii</i>												<a href="#">American Rats Tail Grass</a>
Bellyache Bush	<i>Jatropha gossypifolia</i>		H										<a href="#">Bellyache Bush</a>
Cat's claw creeper	<i>Dolichandra unguis-cati</i>		M										<a href="#">Cat's Claw Creeper</a>
Chinee Apple	<i>Ziziphus mauritiana</i>				8								<a href="#">Chinee Apple</a>
Gamba Grass	<i>Andropogon gayanus</i>		H	1			1	1	1		1		<a href="#">Gamba Grass</a>
Giant Rats Tail Grass	<i>Sporobolus natalensis</i>		H	6			2	2			3		<a href="#">Giant Rats Tail Grass</a>
Giant Parramatta Grass	<i>Sporobolus fertilis</i>	1			1					1			<a href="#">Giant Parramatta Grass</a>
Giant Sensitive Plant	<i>Mimosa diplotricha</i>		M	13									<a href="#">Giant Sensitive Plant</a>
Hymenachne	<i>Hymenachne amplexicaulis</i>		H	4					2				<a href="#">Hymenachne</a>
Lantana	<i>Lantana camara</i>		H	1		4			4				<a href="#">Lantana</a>

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Mother of Millions	<i>Bryophyllum</i> spp		M										<a href="#">Mother-Millions</a>
Parkinsonia	<i>Parkinsonia aculeata</i>	3			3					3			<a href="#">Parkinsonia</a>
Parthenium	<i>Parthenium hysterophorus</i>		H										<a href="#">Parthenium</a>
Pond Apple	<i>Annona glabra</i>		H	1		1				3			<a href="#">Pond Apple</a>
Prickly Pear	<i>Opuntia</i> spp.		H										<a href="#">Prickly Pear</a>
Rubber Vine	<i>Cryptostegia grandiflora</i>	3	H		3						4		<a href="#">Rubber Vine</a>
Salvinia	<i>Salvinia molesta</i>		H										<a href="#">Salvinia</a>
Sicklepod	<i>Senna obtusifolia</i>	1	H	6	1	4	3	3	5	1	4		<a href="#">Sicklepod</a>
Singapore Daisy	<i>Sphagneticola trilobata</i>		M	9		3		3	10		4		<a href="#">Singapore Daisy</a>
Thunbergia	<i>Thunbergia grandiflora</i> <i>Thunbergia laurifolia</i>		H										<a href="#">Thunbergia</a>
Tobacco weed	<i>Elephantopus mollis</i>		H										<a href="#">Tobacco-Weed</a>
Yellow Oleander (Cook's Tree)	<i>Thevetia peruviana</i>		H										<a href="#">Yellow Oleander</a>
Water Hyacinth	<i>Eichhornia crassipes</i>		H		5					2			<a href="#">Water Hyacinth</a>
Water Lettuce	<i>Pistia stratiotes</i>		H										<a href="#">Water-Lettuce</a>

Local Government Priority Weeds

PRIORITY WEEDS		AURUKUN	COOK *	HOPEVALE	KOWANYAMA	LOCKHART RIVER	MAPOON	NAPRANUM	NORTHERN PENINSULA AREA	PORMPURAAW	WEIPA TOWN AUTHORITY	WUJAL WUJAL	Hyperlink to Fact Sheet
Common name	Scientific name												
<b>Environmental Weeds</b>													
Annual mission grass	<i>Cenchrus pedicellatus</i>										9		<a href="#">Annual Mission Grass</a>
Barleria	<i>Barleria lupulina</i>		M										<a href="#">Barleria</a>
Bauhinia	<i>Bauhinia monandra</i>		L										<a href="#">Bauhinia</a>
Blue Top	<i>Ageratum houstonianum</i>					11							<a href="#">Blue Top</a>
Bracharia	<i>Urochloa decumbens</i>					8							<a href="#">Bracharia</a>
Calotrope	<i>Calotropis procera</i>		L										<a href="#">Calotrope</a>
Caltrop	<i>Tribulis terrestris</i>		M										<a href="#">Caltrop</a>
Cassia	<i>Cassia siamea</i>		L										<a href="#">Cassia</a>
Castor oil bush	<i>Ricinus communis</i>	7	L		9					7			<a href="#">Castor Oil Bush</a>
Chinese burr	<i>Triumfetta rhomboidea</i>			14									<a href="#">Chinese Burr</a>
Coffee senna	<i>Senna occidentalis</i>	7	L		9					7			<a href="#">Coffee Senna</a>
	<i>Cordia wallichii</i>			9									
Gambia Pea	<i>Crotalaria goreensis</i>							13					<a href="#">Gambia pea</a>
Glory lily	<i>Gloriosa superba</i>												<a href="#">Glory Lily</a>

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Grader grass	<i>Themeda quadrivalvis</i>	5	M	5	6	6	8	8	7	5	11		<a href="#">Grader Grass</a>
Grewia	<i>Grewia asiatica</i>		L										<a href="#">Grewia</a>
Guinea grass	<i>Megathyrsus maximus</i> var. <i>maximus</i>			11		7					10		<a href="#">Guinea Grass</a>
Hairy croton	<i>Croton hirtus</i>		M										<a href="#">Hairy Croton</a>
Hyptis	<i>Hyptis suaveolens</i>		M						14				<a href="#">Hyptis</a>
Indian Calopo	<i>Calopogonium mucrundoides</i>								8				<a href="#">Indian Calopo</a>
Ivy Gourd	<i>Coccinia grandis</i>					1							<a href="#">Ivy Gourd</a>
Khaki weed	<i>Alternanthera pungens</i>		M				5						<a href="#">Khaki Weed</a>
Leucaena	<i>Leucaena leucocephala</i>	5	M	8	6		3	3	6	5	4		<a href="#">Leucaena</a>
Lion's Tail	<i>Leonitis nepetaefolia</i>		H						8				<a href="#">Lion's tail</a>
Malachra	<i>Malachra fasciata</i>		L										
Mapoon bush	<i>Morinda reticulata</i>								17				<a href="#">Mapoon Bush</a>
Mossman River grass	<i>Cenchrus echinatus</i>		M			10	6	6			8		<a href="#">Mossman River Grass</a>
Mother in Law's tongue	<i>Sansevieria trifasciata</i>		M										<a href="#">Mother in Law's Tongue</a>
Navua sedge	<i>Cyperus aromaticus</i>		M										<a href="#">Navua sedge</a>
Neem tree	<i>Azadirachta indica</i>		M										<a href="#">Neem Tree</a>
Noogoora Burr	<i>Xanthium pungens</i>	10	M		12					10			<a href="#">Noogoora Burr</a>
Panicle Jointvetch	<i>Aeschynomone paniculate</i>		M										<a href="#">Joint Vetch</a>

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Parra grass	<i>Urochloa mutica</i>										7		<a href="#">Para Grass</a>
Praxelis	<i>Praxelis clematidea</i>		L			11				11			<a href="#">Praxelis</a>
Red Convolvus	<i>Ipomoea hederifolia</i>					11							<a href="#">Red Convolvulus</a>
Sensitive plant	<i>Mimosa pudica</i>		M			11							<a href="#">Sensitive Plant</a>
Sida	<i>Sida rhombifolia</i> <i>Sida acuta</i> <i>Sida cordifolia</i>		L										<a href="#">Sida</a>
Sisal	<i>Agave sisalana</i>							7					<a href="#">Sisal</a>
Snake weed	<i>Stachytarpheta jamaicensis</i>		L	12		11				14			<a href="#">Snake Weed</a>
Star of Bethlehem (also known as Cupid's Flower)	<i>Ipomoea quamoclit</i>									16			<a href="#">Star of Bethlehem</a>
Thornapple	<i>Datura stramonium</i>		M										<a href="#">Thornapple</a>

\* Cook Shire Weed Priorities from 2012 – 16 Pest Management Plan currently under review.

# Wujal Wujal Shire Weed Priorities currently under review.

Local Government Priority Pest Animals

PRIORITY PEST ANIMALS		AURUKUN	COOK *	HOPEVALE #	KOWANYAMA	LOCKHART RIVER	MAPOON	NAPRANUM	NORTHERN PENINSULA AREA	PORMIPURAAW	WEIPA TOWN AUTHORITY	WUJAL WUJAL #	Hyperlink to Fact Sheet
Common name	Scientific name												
Feral pigs	<i>Sus scrofa</i>	1	H	2	1	1	1	1	1	1	1		<a href="#">Feral Pigs</a>
Wandering Horses	<i>Equus caballus</i>	2	H	3	2	2	3		2	2			<a href="#">Feral Horse</a>
Wild Dogs	<i>Canis familiaris</i>	2	H	4	2	2	4	3	3	2	3		<a href="#">Wild Dog</a>
Feral Cattle	<i>Bos taurus</i>	4	M	1	4	4				4			
Feral cats	<i>Felis catus</i>	5	H	5	5		2	2	4	5	2		<a href="#">Feral Cat</a>
Rabbits	<i>Oryctolagus cuniculus</i>		H										<a href="#">Rabbit</a>
Rusa deer	<i>Cervus timorensis</i>		H										<a href="#">Rusa Deer</a>
Chital deer	<i>Axis axis</i>		H										<a href="#">Chital Deer</a>

\* Cook Shire Weed Priorities from 2012 – 16 Pest Management Plan currently under review.

# Wujal Wujal Shire Weed Priorities currently under review.

## APPENDIX 2.

### Draft Terms of Reference for Revised Cape York Biosecurity Management Governance Arrangements

#### **Governance Arrangements Aims are:**

- To reduce the impacts of biosecurity risks to the economic, environmental and cultural assets and values of Cape York Peninsula by:
  - adopting a whole of landscape approach to biosecurity management.
  - being inclusive, transparent and accountable to stakeholders and Cape communities.
  - fostering a coordinated and cooperative approach to biosecurity management across the Cape and with adjoining regions.
  - building capacity across all stakeholder groups.

#### **The Purpose of the Governance Arrangements is to:**

- provide a forum for participation by major Cape York stakeholders in biosecurity management
- support and participate in the development, implementation, monitoring progress and review of the Cape York Peninsula Regional Biosecurity Plan
- provide advice to Cape York Natural Resource Management Ltd on strategic biosecurity priorities
- facilitate co-ordinated approaches to regional biosecurity management (e.g. sharing of resources).
- facilitate communication, feedback, advice, integration and support to members and the broader groups they represent on regional biosecurity management issues and responses.

#### **Group Membership:**

One representative from each of the following organisations:

Northern Peninsula Area Regional Council  
Mapoon Aboriginal Shire Council  
Napranum Aboriginal Shire Council  
Pormpuraaw Aboriginal Shire Council  
Kowanyama Aboriginal Shire Council  
Lockhart River Aboriginal Shire Council  
Hopevale Aboriginal Shire Council  
Wujal Wujal Aboriginal Shire Council  
Aurukun Shire Council  
Torres Shire Council  
Cook Shire Council  
Weipa Town Authority  
Queensland Department of Agriculture and Forestry (Biosecurity Queensland)  
Australian Department of Agriculture  
Department of Environment and Heritage Protection (Queensland National Parks)

#### **The Group Advancing the Governance arrangements is Accountable for:**

- facilitating the implementation of the Plan.
- fostering collaboration, coordination and cooperation.
- advocating the success adoption and delivery of the Plan.
- maintaining focus on the agreed scope, outcomes and benefits of the plan.
- Monitoring and annually (May-June) reviewing actions and projects in order to adapt to changing conditions in finding and knowledge.

### **Group Members will commit to:**

- attend scheduled meetings and nominating a proxy in absence.
- promote the Regional Biosecurity Plan and its strategies and actions within and outside of the organisations they represent.
- ensure information is disseminated across all group members.
- make timely decisions and take appropriate actions.

### **Group members will expect:**

- to be provided with complete and accurate information in a timely manner.
- to be given reasonable time to make decisions.
- to be alerted to potential risks and issues that could Plan implementation impacts as they arise.
- Open and honest discussion, without resorting to any misleading assertions.

### **Group Operating Arrangements:**

#### **Meetings**

- The Group will meet in-person or by video/teleconference 2 times per year. One meeting will be nominated to focus on reporting and evaluation of Plan implementation actions.
- CYNRM will act a secretariat for the group, providing logistical and administrative support.
- Meetings will be hosted on a rotational basis by representatives from each stakeholder group with assistance from Cape York NRM Ltd.
- Other representatives from stakeholder organisations may be invited to attend RPMG meetings by RPMG members on an as needs basis.
- Agenda items for each meeting will be sought by the meeting host 2 weeks prior to the meeting. A report of the activities and progress is to be tabled as a standing agenda item at every RPMG meeting. The final agenda will be circulated to members via email at least 3 working days prior to the agreed meeting date.
- Draft minutes and actions from each meeting will be circulated to all members within 2 weeks of any meeting. Members will have the opportunity to provide comments on the minutes for a period of one week after dispatch of the draft minutes. The minutes will be finalised based on any comments and circulated at least three days prior to the next scheduled meeting. Minutes and actions are to be formally confirmed at the start of each meeting.
- A rolling actions list with assigned responsibilities and timeframes is to be generated and updated following each meeting.

**Governance**

- The chair and deputy chair will be selected by the Group members for a 12 month period.
- The role of the Chair is to keep the meeting open, transparent and well documented and facilitate decisions where required within meetings.
- Consensus on decision making should be promoted but if a vote is necessary to make a decision a quorum of 50 per cent plus 1 member attending will be used to resolve issues. Voting will be by a show of hands and recorded without names in the meeting minutes.