Torres Strait Regional Biosecurity Plan

2018-2023

Torres Strait Island Regional Council

Torres Shire Council

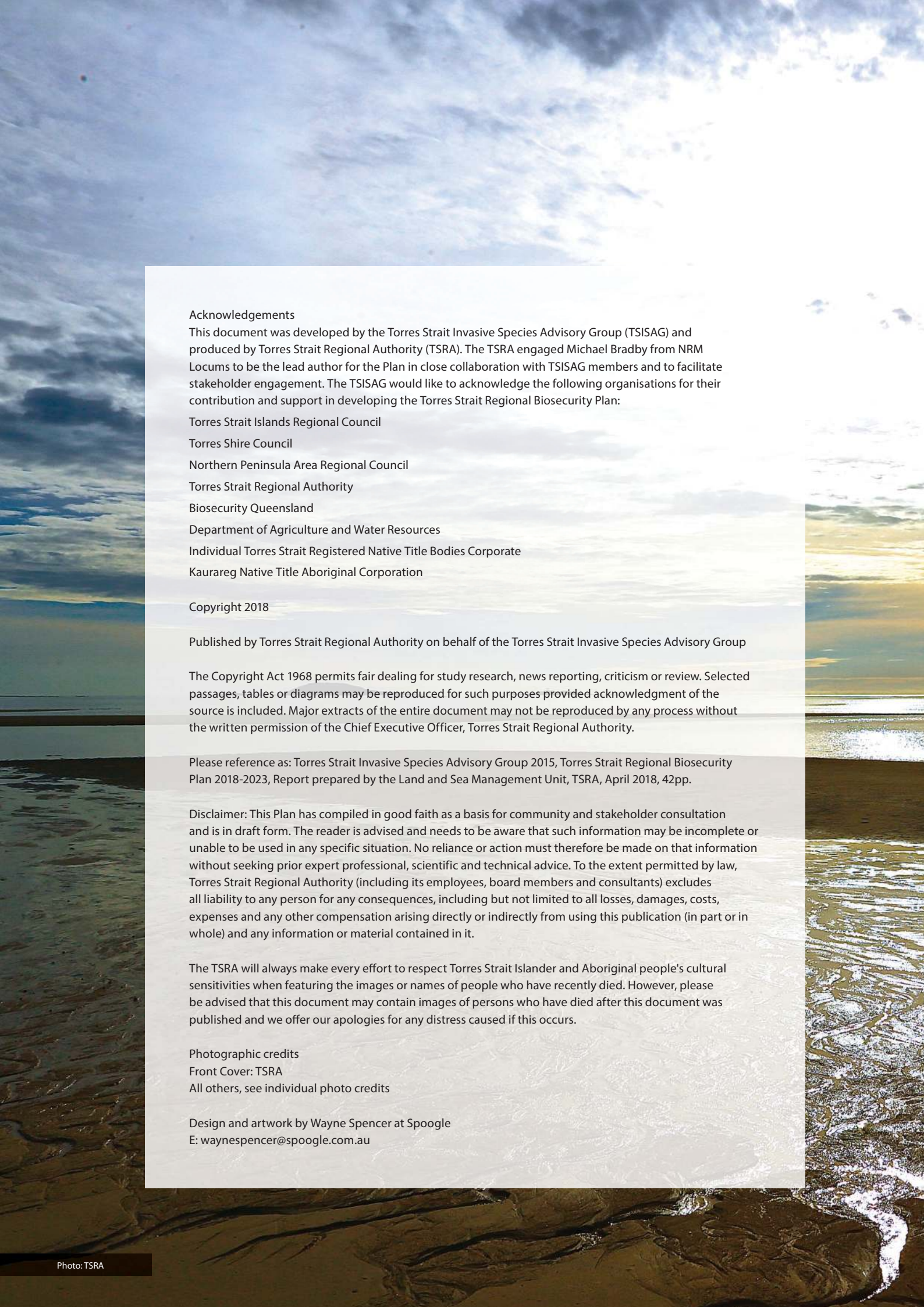
NPARC Northern Peninsula Area Regional Council

Australian Government

Torres Strait Regional Authority TSRA www.tsra.gov.au

Biosecurity Queensland Queensland Government

Australian Government Department of Agriculture and Water Resources



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Torres Strait Islands Regional Council

Torres Shire Council

Northern Peninsula Area Regional Council

Torres Strait Regional Authority

Biosecurity Queensland

Department of Agriculture and Water Resources

Individual Torres Strait Registered Native Title Bodies Corporate

Kaurareg Native Title Aboriginal Corporation

Please reference as: Torres Strait Invasive Species Advisory Group 2015, Torres Strait Regional Biosecurity Plan 2018-2023, Report prepared by the Land and Sea Management Unit, TSRA, April 2018, 42pp.

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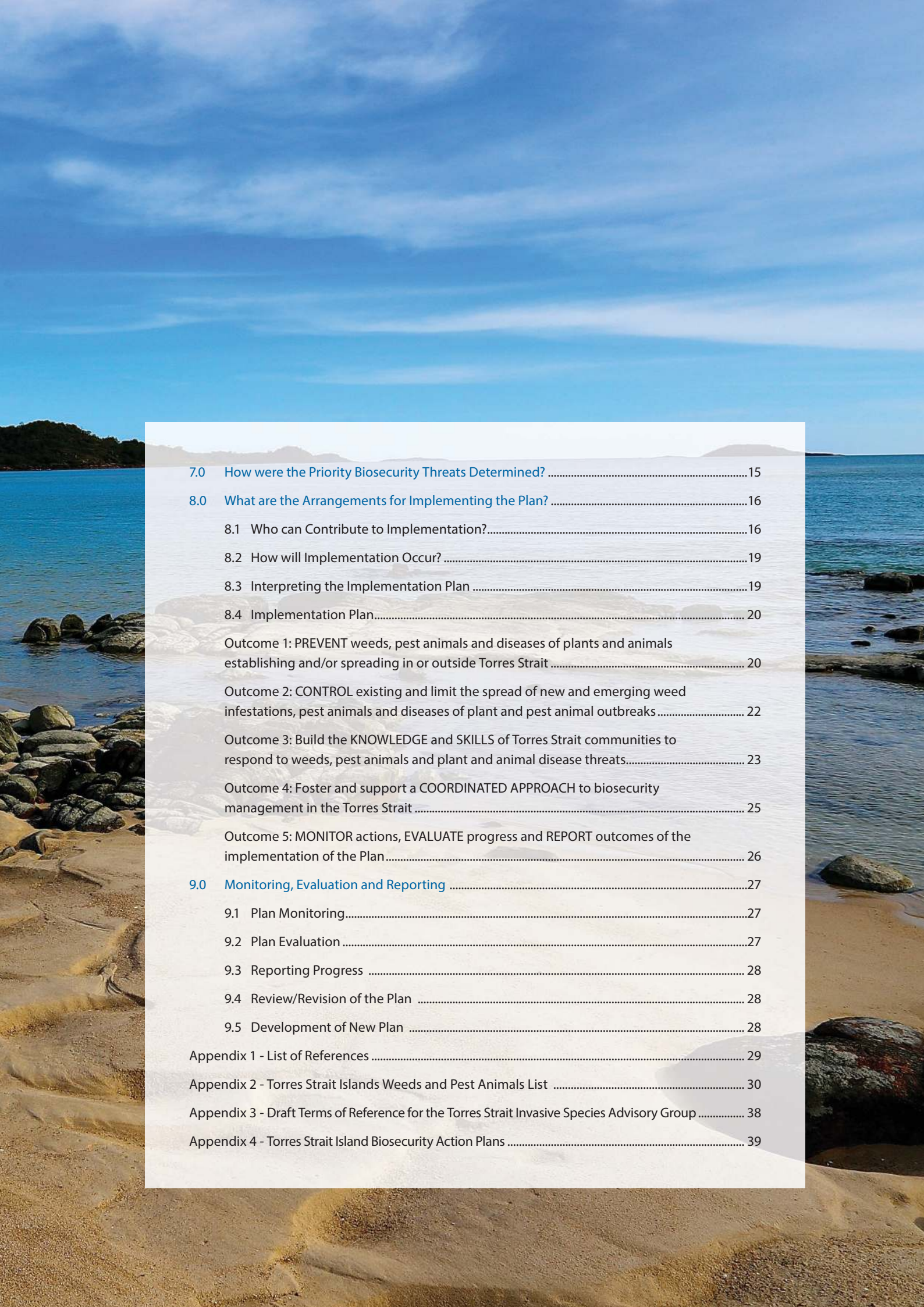


Table of Acronyms

ACDC	Agricultural Chemical Distribution Control Training
BQ	Biosecurity Queensland
COs	Compliance Officers
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAF	Department of Agriculture and Fisheries
DAWR	Department of Agriculture and Water Resources
DSITI	Department of Science, Information Technology and Innovation
EHWs	Environmental Health Workers
GBK	Gur A Baradharaw Kod
GBO	General Biosecurity Obligation
IBAP	Island Biosecurity Action Plan
LGA	Local Government Association
LSMU	Land and Sea Management Unit
NAQS	Northern Australia Quarantine Strategy
NPARC	Northern Peninsula Area Regional Council
PNG	Papua New Guinea
RI	Research Institutions
RNTBCs	Registered Native Title Bodies Corporate
TEK	Traditional Ecological Knowledge
TS&NPA BWG	Torres Strait and Northern Peninsula Area Biosecurity Working Group
TSC	Torres Shire Council
TSIRC	Torres Strait Island Regional Council
TSISAG	Torres Strait Invasive Species Advisory Group
TSRA	Torres Strait Regional Authority
WoNS	Weeds of National Significance

Photo: TSRA

Community Leaders' Joint Message

For millennia – since bepor taim – Indigenous peoples of the Torres Strait and Northern Peninsula Area have practiced traditional land and sea management in accordance with Ailan Kastom, Aboriginal Lore/Law and native title rights and interests. Because of this continuing stewardship, the region remains one of the richest and most intact environments on earth.

Our region still faces many environmental challenges, including those resulting from invasive animals, plants and diseases that exist here now or have the potential to arrive here from other regions particularly Papua New Guinea and mainland Australia. This Torres Strait Regional Biosecurity Plan details the regional biosecurity management actions required to manage the priority invasive species of the Torres Strait and Northern Peninsula Area regions. This Plan provides guidance for invasive species managers of the region, including traditional owners, community-based indigenous rangers and government agencies and serves as the Local Government Area Biosecurity Management Plan for both the Torres Shire Council and the Torres Strait Island Regional Council. The Northern Peninsula Area Regional Council has a separate Biosecurity Management Plan, but due to close proximity and similarly shared diverse cultures, we have sought to ensure that both management arrangements are complementary.

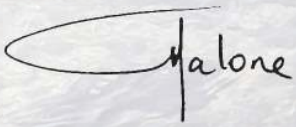
The Plan has been developed in close collaboration and with goodwill between all stakeholders who have responsibility for the management of biosecurity in the region. This includes all levels of government, Traditional Owners (through Registered Native Title Bodies Corporates) and island communities who have worked together to determine the key biosecurity issues, threats, strategies and actions required to deal with these invasive species. We will ensure that this unified working relationship promotes a spirit of cooperation between all parties that should continue into the future if our future generations are to enjoy the region's pristine environment that we all have access to now.

On behalf of the Torres Strait Regional Authority, Torres Shire Council, Torres Strait Island Regional Council and Northern Peninsula Area Regional Council, we acknowledge the significant effort and collective wisdom that has helped develop this Biosecurity Plan. We are passionate and committed to protecting and maintaining our environment and culture and look forward to working together to implement this Plan to achieve our collective vision:

"To empower Torres Strait & Northern Peninsula Area communities to minimise the impacts of weeds and pest animals, and their diseases on this region's environment, cultural places and communities."

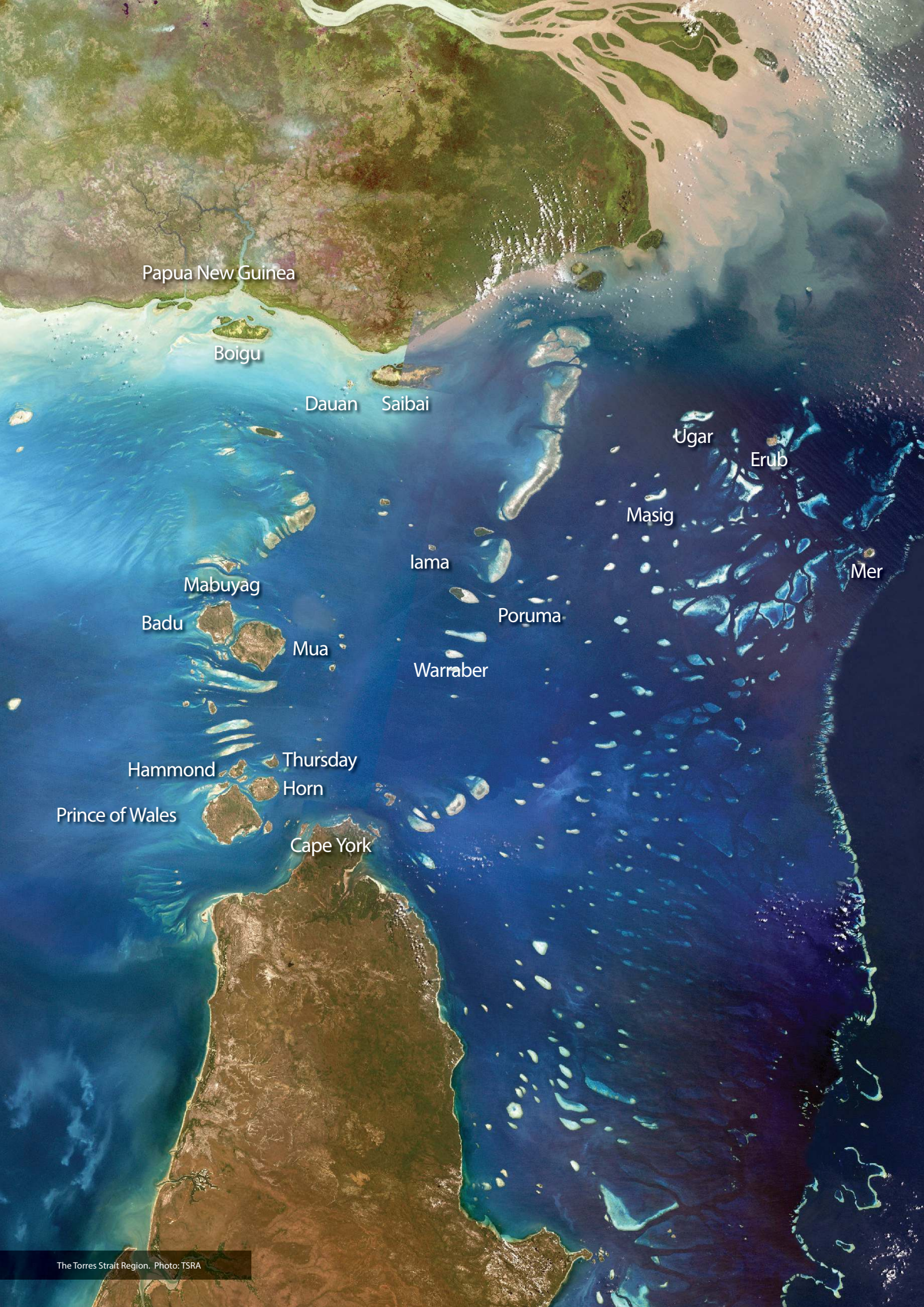
Napau Pedro Stephen AM,
Chairperson, Torres Strait Regional Authority

Fred Gela,
Mayor, Torres Straits Island Regional Council



Vonda Moar-Malone,
Mayor, Torres Shire Council

Lesley Newman,
Mayor, Northern Peninsula Area



The Torres Strait Region. Photo: TSRA

1 Introduction

Torres Strait Regional Authority (TSRA), Torres Shire Council (TSC), Torres Strait Island Regional Council (TSIRC), Northern Peninsula Area Regional Council (NPARC) and the Torres Strait Invasive Species Advisory Group (TSISAG) have collaboratively developed this Regional Biosecurity Plan (the Plan). The development of the Plan has been the culmination of extensive consultation with Torres Strait and NPARC communities, Registered Native Title Bodies Corporate (RNTBCs), all levels of government and research providers.

The Plan has been developed to align with the Torres Strait and NPA biosecurity strategy, in response to the significant threats to Torres Strait's economic, environmental, social and cultural assets and values, posed by existing and potential pests from within and outside Australia. The plan recognises that the most practical and effective way to manage a number of these threats is at the regional level while acknowledging and supporting the management approaches adopted by each of the Torres Strait island communities.

Biosecurity issues (weeds, pest animals (including invertebrate pests) and diseases of plants and animals (including invertebrate pests)) do not exist in isolation from broader land and sea management considerations. TSRA has recently developed a revised Land and Sea Management Strategy 2016–2036 for the region. Through this process, this Plan will be complementary to and supported by broader land and sea management goals and activities.

1.1 What is the Purpose of the Plan?

This Plan is aimed at increasing efficiency and effectiveness of biosecurity management by:

- Empowering Torres Strait communities to better manage land and sea country to minimise biosecurity threats.
- Delivering a regional decision making framework to support community-based programs that further develop biosecurity management capacities and capabilities at the regional and island 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 threats.
- Directing the development of new regional biosecurity programs to tackle established and emerging biosecurity management priorities.
- Incorporating traditional ecological and cultural knowledge of Torres Strait and Aboriginal peoples into biosecurity management.
- Delivering biosecurity information to increase the knowledge of Torres Strait communities.
- Providing training opportunities to enhance Torres Strait islanders' skills to better prevent and manage weeds, pest animals and plant and animal diseases.
- Providing a framework for monitoring, evaluating and reporting on the Plan to implementation progress.

The Plan consolidates the biosecurity issues of the region by establishing a region-wide planning framework to provide clear direction for the management of weeds, pest animals and diseases of plants and animals across the Torres Strait for the period 2018-2023, underpinned by practical actions directed at both the regional and island levels. It will also place the region in a favourable position to access any future funding opportunities for pest prevention and biosecurity management.

1.2 The VISION for Torres Strait Biosecurity Management:

Torres Strait's natural, economic and cultural values are enhanced and protected by managing weeds, pest animals and pests and diseases of plants and animals through collaborative and coordinated approaches while respecting *Ailan Kastom*, Aboriginal lore and native title rights and interests.

The MISSION for organisations with biosecurity management responsibilities is:

1.3 Overarching Strategy – Torres Strait and Northern Peninsula Area Biosecurity Strategy

A new working group has recently been set up to focus on protecting the unique and pristine environment of Torres Strait and the Northern Peninsula Area of Cape York. Local, state and federal representatives met for the first time in Cairns in December 2016 to plan activities under the new Torres Strait and Northern Peninsula Area Biosecurity Working Group (TS&NPA BWG).

A key aim for the group is to effectively manage biosecurity risk from both the north and the south, and between islands. While the scope includes all biosecurity risks, it will initially focus on plant pests, invasive animals and plants (weeds), and mosquitos.

The working group is made up of participants from the Queensland Government Department of Agriculture and Fisheries (DAF); Queensland Government Department of Environment and Heritage Protection (DEHP); Queensland Health; Australian Government Department of Agriculture and Water Resources (DAWR); Australian Government Department of the Environment and Energy; Australian Government Department of Health; Torres Strait Regional Authority (TSRA); Torres Strait Island Regional Council (TSIRC); Torres Shire Council (TSC); and the Northern Peninsula Area Regional Council (NPARC).

An overarching regional biosecurity strategy for the Torres Strait and Northern Peninsula Area, to be titled the *Torres Strait and Northern Peninsula Area Biosecurity Strategy*, will be developed. This strategy will set the biosecurity objectives for the region and will build on, and complement, existing strategies/plans including this Plan.

2 Why the Need for a Regional Biosecurity Plan?

Land and sea management has a strong history throughout the Torres Strait. It has underpinned, and continues to underpin Torres Strait 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 their *Ailan Kastom* (Island custom) and Aboriginal lore, is central to the way Indigenous communities function.

Weeds, pest animals (including marine pests and invertebrate pests) and pests and diseases of plants and animals (including invertebrate pests) pose a major threat to the economic, environmental, social and cultural assets and values throughout the Torres Strait and potentially to adjoining regions (including Cape York Peninsula) should they make their way through the Torres Strait.

Weed infestations may affect the ecological composition, structure and function of the habitats and natural processes that keep Torres Strait's land systems healthy by displacing native plants and providing habitat that is unsuitable for some native fauna. These biosecurity threats may contribute to changes in fire regimes, reduce groundcover and lead to increased risk of erosion causing sediment movement into waterways and the sea. Some weeds are toxic and have the potential to adversely affect human health. Aquatic weeds can affect flows and ecological function in streams and wetlands and detract from conservation and recreational values. Weed infestations may also have adverse impacts on community food production efforts.

Pest animals may destroy native vegetation, kill or injure native fauna, impact our marine environment, disturb soil and make it more prone to erosion and help to spread weeds. There are concerns that they could also impede efforts to contain the spread of exotic plant and animal disease outbreaks, especially from PNG and Indonesia, should they occur. There is also the real risk of pest species reaching the Torres Strait from mainland Australia. This has materialised in recent times, with cane toads now established on Thursday and Horn islands and mosquito fish on Horn Island. There has also been the introduction of nvasive fish species from PNG with climbing perch establishing on Boigu and Saibai islands. There is also the risk of biosecurity threats reaching PNG from the Torres Strait.

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. It is acknowledged that some weeds are used for traditional medicinal, cooking practices and ceremonies, while feral animals such as pigs, goats and deer are used to supplement food resources on islands where they exist. The Torres Strait islands lie between and immediately adjacent to the New Guinean and Australian landmasses, which harbour a range of plant and animal pests and diseases not found naturally in the islands.

The islands are susceptible to new incursions from the north and south through natural and human-assisted pathways. Natural pathways include wind and tide movements, insect flight and animal migration. Human-assisted pathways include foreign and domestic vessel movements, domestic aircraft movements and domestic passenger and cargo movements through Torres Strait, and traditional trade between residents of the Western Province (PNG) Treaty Villages and traditional inhabitants of the Torres Strait Protected Zone in accordance with Australia's treaty obligations.

A number of exotic pests and plant diseases have been recorded in the Torres Strait islands. These include pest fruit fly species, Asian honey bees, cane toads, vegetable leaf miner and black Sigatoka disease of bananas. In some cases these are transient seasonal incursions, but in others they have become established on a small number of islands. Other pests and diseases present in New Guinea or the Australian mainland may also pose a threat.

Photo: Torres Shire Council

Photos: TSRA

3 How has the Plan been Developed?

Engagement with Torres Strait communities, RNTBCs and government and research stakeholders to inform the initial development of the Torres Strait Regional Biosecurity Plan, receive feedback and substantiate existing knowledge is critical to gaining widespread support for implementation of the Plan's intended outcomes. Following finalisation of the Plan and achieving the intended outcomes, strategies and actions will ensure broad involvement in the implementation of the Plan.

This partnership approach recognises that a range of people need to be informed about and contribute to policy and decision making and be involved in biosecurity management. Helping people to understand the key biosecurity issues identified in the Plan, involving people in biosecurity management using the right techniques and focusing people's energy in the right direction is critical to managing weeds, pest animals and diseases of plants and animals in the region.

The preparation of the Plan has involved a number of key information collection processes. These have included the conduct of community workshops on most inhabited Torres Strait islands, a range of targeted consultation processes, such as one-on-one interviews with Commonwealth, State and local government and TSRA staff and an extensive literature review.

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

3.1 Community Consultation Findings

Consultation meeting participants (approximately 200) were united in their support for the Regional Biosecurity Plan to initiate strategies to minimise the introduction of weeds, pest animals and plant and animal diseases to the Torres Strait. Participants acknowledged that preventing the establishment of biosecurity threats was more cost effective than controlling threats after they had been established.

Several meeting attendees were critical of the inequity in Torres Strait Protected Zone requirements whereby goods travelling to mainland Australia were restricted and required biosecurity checks but there was no scrutiny of goods, especially bulk building and landscaping materials, coming from mainland Australia to the Torres Strait. The inclusion of a suite of biosecurity strategies for goods coming into the Torres Strait was supported by consultation participants.

Island communities want government organisations involved in biosecurity management to work together better. Greater cooperation and coordination of effort at both island and regional level was proposed, with support for rangers, TSIRC Environmental Health Workers (EHWs), TSC Compliance Officers (COs), Department of Agriculture and Water Resources Biosecurity Officers and trained My Pathway workers gaining necessary skills and, where biosecurity management activities are warranted, activating joint management projects. One participant commented 'Everyone has a stake in protecting our islands'.

Island communities supported greater skills development opportunities being provided to community members so as to increase the skills pool on islands to self-manage biosecurity threats. In particular, island communities supported action learning approaches that enabled Council EHWs and COs and My Pathway workers to gain biosecurity management skills.

The lack of feedback from research and biosecurity survey activities to island communities was regularly raised in consultation meetings. Participants asked for feedback from researchers so island communities are made aware of biosecurity issues affecting the environmental and cultural values of their respective islands. Island communities also want rangers and Council EHWs and COs to tell the community what they have been doing and what they are planning to do.

The traditional use of some feral animals as a community food source and of some weeds for medicinal and ceremonial purposes is recognised as a challenge. Finding a balance between the traditional use of these pests and the environmental damage they cause to relatively pristine environments if their numbers and/or extent increase beyond a sustainable level needs to be informed by science. However, the way forward must be decided by island communities once they are fully informed of the impact on their island environments.

There is almost unanimous consensus that cane toads pose the greatest threat to island environments if they reach currently unaffected islands. Every effort must be made to ensure these islands remain free from cane toads.

Photo: TSRA

3.2 Key Stakeholder Consultation Findings

It is generally acknowledged by government biosecurity staff and researchers that most islands' weeds infestations are limited to the communities and surrounding disturbed areas. Successful management of priority species is viewed as being achievable within the life of this Plan, provided ongoing funding for biosecurity management is available.

It was also noted that Torres Strait islands are vulnerable to new biosecurity threats being introduced and that regular ongoing surveillance continues to be necessary to identify emerging threats and manage them quickly.

The principle of cultural empowerment was foremost in the comments received from Registered Native Title Bodies Corporate representatives. The development of the Plan and its subsequent implementation through existing delivery mechanisms and new programs is, and will continue to be, underpinned with the principles of cultural empowerment and respecting the cultural protocols of Northern Peninsula Area, Kaurareg, Kulkalgal, Kaiwalagal, Maluilgal, Guda Maluiligal and Meriam peoples.

Support for organisations to work cooperatively to achieve biosecurity management outcomes is considered critical to successfully implementing the Plan. Two key factors supporting cooperative implementation were identified:

- Clearly articulated and agreed roles and responsibilities of all partners involved in biosecurity management; and
- Continuation of the TSISAG with full support from its members to contribute to, and provide support for and oversight of, implementation of the Plan.

3.3 Literature Review Findings

There is a comprehensive suite of literature available to inform the development of the Plan. Descriptions of the various documents reviewed and their relevance in informing the Plan are provided in the literature review report.

Relevant State and Commonwealth Biosecurity legislation and national, state and regional plans and strategies for regional development, natural resource management and pest management provide guidance material


Photo: Torres Shire Council

on the context and suggested content to be included in the Torres Strait Regional Biosecurity Plan. This guidance includes legislative requirements, guiding principles, goals, management approaches and implementation strategies.

The State legislation and the Duff and Weir 2013 report emphasise local government's compliance role in biosecurity management. This role needs to be recognised in the Torres Strait Regional Biosecurity Plan as a key strategy in addressing biosecurity issues in the region.

In the Torres Strait context, annual pest distribution and animal and plant health surveillance data, biosecurity assessments, the draft TSIRC, TSC and NPARC Pest Management Plans and Working on Country – Ranger Plans identify the biosecurity issues affecting Torres Strait island communities and the Northern Peninsula Area of the Torres Strait region and provide direction on actions to address these issues.

The biodiversity assessments undertaken for all TSIRC administered islands, with the exception of Hammond Island, indicate that remnant vegetation is generally free of weeds; however, a number of weed species pose potential threats. The majority of weeds are associated with disturbed and developed areas within and surrounding island communities and fringing disturbed sites areas associated with telecommunications, sewerage and water infrastructure, major roads and tracks, landfills, airfields, recreation areas and the island cemeteries.

While the literature referred to above identifies weed and pest animal species occurring in and around communities on Torres Strait islands, there is a deficiency of mapping information about the precise location of weed species. Some weed mapping has been undertaken by the TSRA Land and Sea Management Unit, but has not been verified by scientific experts or occurred for all Torres Strait inhabited and uninhabited islands.

The literature review has also identified a significant gap in pest species and biodiversity information for the Torres Shire Council islands of Thursday, Horn and Prince of Wales. Traditional Owner permission to undertake weed identification has been limited to the community areas and no detailed pest mapping or biodiversity assessments have been carried out. This lack of information to inform the Regional Biosecurity Plan will significantly limit the Plan's direction for the on-ground management of weeds and pest animals on these three Torres Strait islands until weed mapping and biodiversity assessments are undertaken. These biodiversity and weed mapping, surveys and assessment activities are a particular priority for Thursday and Horn Islands considering they are logistics and passenger transport hubs.


Photo: TSIRC

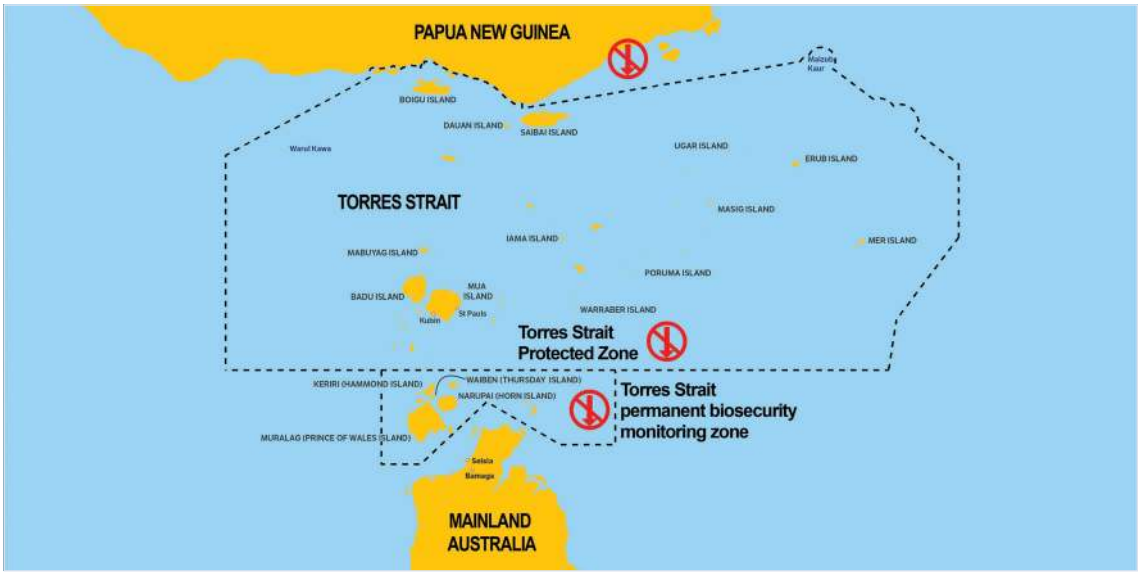
Some weed species have traditional uses for Torres Strait people; for example, candle bush (*Senna alata*) is used to treat ringworm. The traditional use, and frequency of use, of weed species has not been extensively documented. The collection of traditional use information needs to be included as an action in the Regional Biosecurity Plan as a high priority action.

Photo: TSRA

4 How the Plan aligns with Legislation, Strategies & Guidelines

The Plan complements a suite of national strategies and legislation that provides strategic frameworks and establishes consistent guidelines for all parties, identifying priorities for biosecurity 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 State, regional and local documents, are outlined in Table 1.

The *Commonwealth Quarantine Act 1908* was replaced by the *Biosecurity Act 2015* in June 2016. This Act regulates the southwards movement of goods from Papua New Guinea into the Torres Strait Protected Zone, from the Torres Strait Protected Zone into the Torres Strait Permanent Biosecurity Monitoring Zone, and from both of these Zones to the mainland, as in the map below. Further information can be found at http://www.agriculture.gov.au/biosecurity/australia/naqs/moving-goods-torres-strait.



These 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* was superseded by the *Biosecurity Act 2014* (the Act) on 1 July 2016. This new Act provides 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 have made 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 new 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 plans at local, regional, state and national levels are consistent with each other. While there is no legislative requirement for regional biosecurity 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 government areas. Given this intent, the Torres Strait 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 Plans as well as manage weeds, pest animals, and plant and animal diseases, pathogens, or contaminants in their local government areas. Torres Shire Council and Torres Strait Island Regional Council agree that this document will be recognised as the Biosecurity Management Plan for both of their local government areas, which do not have current Pest Management Plans. This recognition provides the foundation for the integration of biosecurity planning, management and implementation activities through collaborative arrangements amongst organisations with responsibilities for biosecurity management in the Torres Strait. The Northern Peninsula Area Regional Council will be writing their local area Biosecurity Management Plan.

Table 1: Regulatory and Planning Context for Torres Strait Regional Biosecurity 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 Weed Strategy (2017-2027)* *Australian Pest Animal Strategy (2017 -2027)* *Biosecurity Act 2015 (Cth)*	National programs for specific weeds e.g Lantana National Strategic Plan Weeds of National Significance (WoNS) New biosecurity incursions to Australia
State	State Natural Resource Management Investment Program State Indigenous Land and Sea Ranger Program *Torres Strait Development Plan 2014-2018*	*Queensland Biosecurity Strategy 2009-2014* *The Queensland Weed Spread Prevention Strategy (2008)* *Queensland Weed and Pest Animal Strategy 2016-2020* *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	*Torres Strait & Northern Peninsula Area Regional Plan 2009 to 2029* *Land & Sea Management Strategy for the Torres Strait 2016-2036* Local government corporate plans		Regional priorities – generally a subset of prohibited and restricted matters together with regionally significant non-declared species
Local	Local government planning schemes Working on Country Ranger Workplans	*Draft NPARC Pest Management Plan 2014 – 2016* *Draft TSIRC Pest Management Plan 2010 – 2014* *Torres Shire Council Pest Management Plan 2007-2009*	Invasive biosecurity matters including prohibited and restricted matters pest plants and animals Local infestations of non-declared plants New invasions of potential weedy species
Islands	General duty of care	Pest Management Workplans	Weeds and pest animals identified and management actions identified
Individuals		*Biosecurity Act 2014*	General Biosecurity Obligation to take all reasonable steps to ensure individuals do not spread a pest, disease or contaminant

Under the *Biosecurity Act 2014* Biosecurity Zones can be established to help prevent the movement of weeds, pest animals and plant and animal diseases to other areas and allow time for that pest to be controlled or eradicated.

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.

At the regional level, the *Torres Strait Development Plan 2014-2018*, the *Torres Strait and Northern Peninsula Area Regional Plan 2009-2029* and the *Land and Sea Management Strategy for Torres Strait 2016-2036* provide whole-of-region planning guidance for the sustainable management and use of Torres Strait's natural resources through practical approaches to improve the ways regional organisations work together to support the region and its people. Integration of biosecurity planning and management activities identified in these documents is the realisation of the intent of the regional plan. These documents can be viewed and\or downloaded at http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program

The common element that binds these regional documents together is the management priorities that strengthen the unique *Ailan Kastom* and Aboriginal lore, preserve and embed Traditional Ecological Knowledge (TEK) into management practices, improve the knowledge base by bringing western science and Indigenous knowledge together and continue to enhance strong community-based management capacity at the island and regional scale.

At the local government level, all three local governments have Pest Management Plans, albeit NPARC's is in draft form and TSC's and TSIRC's are out of date. None of these documents are currently on their respective local governments' websites, but they can be obtained by contacting the respective councils.

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

5 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, pest animals and diseases of plants and animals cause unacceptable damage to natural, economic and cultural assets and values of the Torres Strait.
- Prevention and early intervention are the most cost effective and successful management approaches.
- Empowering Torres Strait communities to manage and protect key cultural, environmental and economic assets and values from biosecurity threats for future generations is a priority.
- Identification and prioritisation of Torres Strait's regional biosecurity issues and actions is driven by empowering communities to lead decision making.
- Respecting and promoting *Ailan Kastom*, Aboriginal lore and native title rights and interests, and incorporating TEK into biosecurity management projects, is a fundamental requirement.
- Collaborative and coordinated biosecurity management, including resource sharing, will result in increased ownership of shared on-ground outcomes.
- Effective community-driven biosecurity management will be enhanced through building and sharing western science and TEK with, and skills development of, Torres Strait communities.

In practice, these guiding principles support collaborative community-led biosecurity management that incorporates TEK and western science in decision making and implementing agreed actions.

6 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, literature review findings and the Plan's guiding principles.

Preventing biosecurity threats from becoming established in the Torres Strait 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 threats spreading within the Torres Strait and new threats being established. For these reasons, emphasis has been placed on strategies in Outcome 1 that will deliver biosecurity prevention outcomes have been emphasised.

Controlling existing biosecurity threats has been a long term role of organisations involved in biosecurity management in the Torres Strait. This focus will continue with the proposed implementation strategies. Recognition of the importance of managing weed infestations, feral animal populations and exotic plant and animal disease outbreaks is embedded in existing land and sea management strategies and programs. Strategies detailed in Outcome 2 will further enhance existing programs.

There is acknowledgement by regional organisations of the need, and a strong desire by Torres Strait communities, for greater cooperation and coordination among stakeholders involved in biosecurity management. The TSISAG will continue to play a pivotal role in ensuring coordination occurs and new partnerships are fostered, where it is appropriate. Strategies detailed in Outcome 3 will contribute to achieving better coordination.

The best way to empower Torres Strait communities is to build their knowledge and skills in relation to biosecurity threats and management approaches. Success in building community knowledge and skills will enhance community-led management approaches to tackling biosecurity threats affecting regional and island environmental and cultural assets and values. Strategies detailed in Outcome 4 will contribute to empowering Torres Strait peoples and communities.

Monitoring implementation of the Plan, regularly evaluating performance and outcomes and reporting progress back to Torres Strait communities and funding providers is essential for ongoing support in implementing the Plan. Strategies detailed in Outcome 5 will contribute to increasing Torres Strait communities' and partners' knowledge about progress and provide the platform for adaptive management.

Photo: Photo: Torres Shire Council

Photo: NPARC

Intertwined throughout all five outcomes is the requirement to respect *Ailan Kastom* and Aboriginal lore in planning for and implementing these outcomes and strategies and build into the plan activities that maintain and incorporate TEK.

The strategies listed under each outcome provide the direction to address priority biosecurity issues through targeted actions delivered by governments, TSRA, Torres Strait 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 Torres Strait local governments, TSRA, island communities and other stakeholders with roles in biosecurity management and research in the Torres Strait.

Outcome 1: PREVENT weeds, pest animals and diseases of plants and animals establishing and/or spreading in or outside Torres Strait

Strategies:

P.1 Promote a Torres Strait Biosecurity Zone to limit the introduction of specified weeds, pest animals and diseases of plants and animals into the Torres Strait from mainland Australia.

P.2 Ensure all materials and machinery entering and leaving the Torres Strait are free from weeds, pest animals, diseases and contaminants.

P.3 Continue surveillance activities through ongoing weed, pest animal and plant and pest animal disease surveys and research to identify and prioritise threats.

P.4 Keep clean areas free from biosecurity threats to maintain healthy environments.

Outcome 2: CONTROL existing and limit the spread of new and emerging weed infestations, pest animals and diseases of plant and pest animal outbreaks

Strategies:

C.1 Support the implementation of expanded biosecurity management in the Torres Strait region through implementing the strategies and actions outlined in the Implementation Plan Table in Section 8.4 (pg.20) and the Island Biosecurity Action Plans (Appendix 4 or by hyperlink http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/managing-our-islands-and-sea-country/biosecurity-plans

C.2 Manage high priority weeds, pest animals and pests and diseases of plants and animals identified in Working on Country Ranger plans and relevant Island Biosecurity Action Plans.

C.3 Target new and emerging weeds, pest animals and diseases of plants and 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*.

C.5 Initiate local declarations for weeds, pest animals and diseases listed in the *Biosecurity Act 2014* or enforce general biosecurity obligations for specified unlisted priority weeds, pest animals and diseases of plants and animals when warranted.

Outcome 3: Build the KNOWLEDGE and SKILLS of Torres Strait communities to respond to weeds, pest animals and plant and pest animal diseases threats

Strategies:

KS.1 Collaboratively develop materials and methods to raise awareness of biosecurity issues affecting Torres Strait regional communities.

KS.2 Distribute relevant biosecurity information, tools and knowledge to meet the needs of Torres Strait regional communities.

KS.3 Train relevant local government officers and Land and Sea Rangers in biosecurity threat identification, monitoring and best practice biosecurity management including compliance enforcement, ChemCert techniques, chemical baiting techniques, pest animal trapping and survey methodologies.

KS.4 Adopt innovative ways to motivate Torres Strait regional communities to actively participate in biosecurity management.

KS.5 Conduct research to improve understanding of and knowledge about biosecurity threats, including collecting information about language names and the traditional use of weeds.

Outcome 4: Foster and support a COORDINATED APPROACH to biosecurity management in the Torres Strait

Strategies:

CA.1 Convene Torres Strait Invasive Species Advisory Group bi-annually or as required to maximise opportunities for collaboration, coordination and knowledge sharing to implement the Plan.

CA.2 Build strong partnerships to support collective efforts to address biosecurity priorities through data and resource sharing and policy and procedural commitment.

CA.2 Identify and develop opportunities to share resources across organisations in the Torres Strait to address biosecurity threats.

CA.4 Compile an inventory of resources available and identify gaps in biosecurity management across the region.

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

Strategies:

MER.1 Utilise a standardised system for collecting, identifying and mapping the location of pest species.

MER.2 Map weed infestations and survey pest animal populations and extent of habitat occupied by pest animals or weeds annually as part of Indigenous Land and Sea Ranger Workplans and Councils' Operational Plans.

MER.3 Monitor and evaluate the effectiveness of treatment techniques to ensure optimum management outcomes inform future activities.

7 How were the Priority Biosecurity Threats Determined?

Identification of and agreement on each inhabited island's priority biosecurity threats has been a staged process. Initially all the weeds and pest animals known to occur on each island from past biosecurity surveys and biodiversity (flora and fauna) assessments were identified in a table (Appendix 2).

An expert panel then reviewed the table to advise on the weeds they considered the most threatening to each island's environmental and cultural assets and values. The list for each island includes all weeds, pest animals and plant and animal diseases that are identified as prohibited and restricted matters in the *Biosecurity Act 2014*, Weeds of National Significance (WoNS) and environmental weeds considered by the expert panel to pose a significant threat to the environmental and cultural assets and values of each island.

Each island community visited during the consultation process provided feedback on these biosecurity threats. This feedback included information about the current existence of these biosecurity threats, any island language names and any traditional uses for weeds. This information should inform revisions of the Working on Country Ranger plans and future iterations of the respective local governments' biosecurity management plans.

Photo: NPARC

8 What are the Arrangements for Implementing the Plan?

To achieve the Plan's vision, implementation must be aligned and focused on supporting the enduring capacity of Torres Strait communities to practice culturally appropriate management of land and sea country. Strong local and regional institutional arrangements are fundamental to foster a coordinated commitment to empowering Torres Strait communities. The TSISAG will play a pivotal role in oversight of the implementation of the Plan. The TSISAG's draft terms of reference is attached at Appendix 3.

The Plan outcomes and accompanying strategies set out in Section 6 will be implemented through the actions identified in the Implementation Plan (Section 8.4). The Implementation Plan reflects the cooperative management of weeds and pest animals, includes actions to be contributed to by all stakeholders and highlights actions within a five-year time frame. Each action identifies stakeholder/s responsible for delivering actions, set time frames and indicators of success against which the plan will be evaluated. Some actions identified in the Plan are already underway as part of existing duties and/or projects.

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

In combination with the Plan, individual Island Biosecurity Action Plans outlining specific management actions to be implemented have been developed for each of the Torres Strait inhabited islands. These plans are included in Appendix 4 and can be accessed through the website at http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/managing-our-islands-and-sea-country/biosecurity-plans

8.1 Who can Contribute to Implementation?

Implementation of the Plan will require a cohesive effort by all contributors 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 will involve cooperation, coordination and commitment of resources for success.

It is important that all contributors are clear and agreed on their respective roles and responsibilities prior to

Table 2: Contributors to Plan implementation

CONTRIBUTING ORGANISATION	RESPONSIBLE FOR
Australian government: Department of Agriculture and Water Resources (includes Northern Australia Quarantine Strategy)	• Administers the *Biosecurity Act 2015* (Cth) and *Biological Control Act 1984* (Cth) • Provides constitutional responsibility for biosecurity on behalf of the Australian government • Coordinates nation-wide approaches to weeds • Employs Biosecurity Officers throughout the Torres Strait to implement relevant regulatory aspects of the Biosecurity Act 2015 (i.e. inspection and regulation of southwards moving goods) and to provide logistical support to NAQS plant and animal health surveillance activities • Funds the Northern Australia Quarantine Strategy that undertakes plant and animal health surveys in the Torres Strait region • Administers the National Landcare Program in conjunction with the Department of the Environment and Energy

CONTRIBUTING ORGANISATION	RESPONSIBLE FOR
Department of the Environment and Energy	• Administers the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) • 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 • Funds environmental programs that support biosecurity management activities – Caring for our Country and Working on Country programs • Funds biosecurity research programs through CSIRO and other organisations
State government: Department of Agriculture and Fisheries, Biosecurity Queensland	• Administers the *Biosecurity Act 2014 (Qld)* which: ◊ outlines the biosecurity responsibilities of different stakeholders; and ◊ requires local governments to prepare a Biosecurity Management Plan for their local government area and allows multiple local governments to plan jointly • Contributes to identifying areas to which Councils should direct their efforts • Provides technical and management information and training to Council personnel • Responds to incursions of weeds, pest animals, and diseases in QLD • Provides expert advice and researches weeds and pest animals
Departments of Natural Resources	• Ensures that declared pest plants and animals are controlled on land under the control of other Government departments • Administers funding programs that support biosecurity management projects
Transport and Main Roads	• Controls declared pests plants and animals on State-controlled road reserves
Environment and Science	• Administers and funds the QLD Indigenous Land and Sea Ranger Program
Torres Strait Regional Authority Land and Sea Management Unit	• Administers funding programs on behalf of the Australian and State governments that support biosecurity management projects • Administers the Torres Strait Land and Sea Ranger Program, which undertakes biosecurity management activities on many islands • Supports and recognises RNTBCs as the recognised holders of native title responsibilities over land and sea country in the Torres Strait • Recognises the important roles played by Gur A Baradharaw Kod (GBK) and Malu Lamar in promoting the collective interests of native title holders over lands and seas across the Torres Strait region • Identify and monitor pest plants and animals and undertake priority control work in line with this Plan • Support the development and implementation of the Plan in partnership with relevant councils and ofter organisations, including controls on the movement of goods from the mainland into Torres Strait
Local Governments: Northern Peninsula Regional Council Torres Shire Council Torres Strait Island Regional Council	• Plays a key role in biosecurity management by enforcing relevant provisions of the *Biosecurity Act 2014* including: ◊ ensuring that weeds, pest animals and plant and animal diseases identified as prohibited and restricted matters in the *Biosecurity Act 2014* are controlled within their area and on lands under its control; ◊ ensuring that people discharge their GBO by performing the relevant management actions for each of the priority pests; and ◊ developing Biosecurity Plans for the management of Invasive Biosecurity Matter for their LGA • Employs Environmental Health Workers and Compliance Officers to undertake biosecurity management responsibilities detailed in the *Biosecurity Act 2014*
Registered Native Title Bodies Corporate	• Approves plans that promote land and sea management and associated implementation and operation and plans • Endorses the land and sea activities of Torres Strait Land and Sea rangers operating on many Torres Strait islands
Research Institutions	• Undertakes specific research projects supplemented by Traditional ecological and cultural knowledge to inform culturally appropriate biosecurity management activities
Island communities	• Plays an influential role in protecting and preserving important environmental and cultural assets and values threatened by weeds, pest animals and plant and animal diseases
Island residents	• Have responsibilities to control weeds and pest animals identified as prohibited and/or restricted matters in the *Biosecurity Act 2014 (Qld)* and have a General Biosecurity Obligation on their own land

8.2 How will Implementation Occur?

A significant number of proposed actions documented in the Implementation Plan may be carried out as part of the implementation of existing delivery mechanisms, plans, strategies, programs and projects. However, it should be noted that to enhance current programs/activities further funding may be required.

In addition, many of the proposed actions in the Implementation Plan are currently unfunded and may require legislative amendment or assignment of responsibilities to existing organisational roles. Agreement to these actions will occur through a negotiated process with relevant organisations identified against actions in the Implementation Plan. Allocation of responsibilities to organisations identified in Section 8.4 of the Implementation Plan cannot be assumed without appropriate consultation and agreement with relevant organisations' senior managers.

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

- Integrating with other local and regional strategies and plans that encompass biosecurity management (i.e. local government biosecurity management plans, development permits and local laws, the Regional Land and Sea Management Strategy for Torres Strait).
- Community-based planning documents (i.e. Working on Country Ranger Plans, Indigenous Protected Area Management Plans) that complement the individual Island Biosecurity Action Plans (Appendix 4 or on the website at http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/managing-our-islands-and-sea-country/biosecurity-plans
- Seeking additional funding opportunities from new government-initiated funding programs where Strategy outcomes align with governments' priorities.
- Negotiating legislative change and assignment of new responsibilities to responsible organisations.

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

8.3 Interpreting the Implementation Plan

The Implementation Plan strategies and actions outlined below have been colour-coded to reflect their status. Where strategies and associated actions are in blue font it means these actions are underway. Where strategies and actions are in red font it means implementation is yet to commence but is planned to commence sometime during the five-year life of the Plan. The stakeholders listed in the tables below provide either technical and/ or regulatory advice, or are directly involved with the management of weeds, pest animals and

8.4 Implementation Plan

Outcome 1: PREVENT weeds, pest animals and diseases of plants and animals establishing and/or spreading in or outside Torres Strait.

STRATEGY REFERENCE NO.	IMPLEMENTATION ACTIONS	HOW WILL SUCCESS BE MEASURED	WHO IS INVOLVED	TIMEFRAME	RESOURCING	ACTION STATUS
P.1 Promote a Torres Strait Biosecurity Zone to limit the introduction of specified weeds, pest animals and diseases of plants and animals into the Torres Strait from mainland Australia						
P 1.1	Promote a Torres Strait Biosecurity Zone / Region that helps prevent both the southern and northern movement of pests plants and animals and diseases from PNG and mainland Australia with relevant government agencies. Develop and adopt a Torres Strait biosecurity threat prevention policy and supporting protocols and support their adoption by all stakeholders and Identify high risk points e.g. activities, industries, locations and identify strategies for addressing them.	Torres Strait Biosecurity Zone / Region established.	TSISAG, TS&NPA BWG, BQ, NAQS, TSC, TSIRC, NPARC	On-going	Absorbed	Not started
P.2 Ensure all materials and machinery entering and leaving the Torres Strait are free from weeds, pest animals, diseases and contaminants						
P 2.1	Develop and adopt biosecurity threat prevention protocols, develop and require hygiene certificates for at risk providers and support their adoption by all stakeholders (as per action P 1.2).	Weed prevention protocols available and adopted. Hygiene certificate (or similar) specifically for the purpose of preventing introductions into Torres Strait developed.	TSRA, TSIRC, TSC, NPARC, BQ	On-going	Absorbed	Not started
P 2.2	Require Hygiene Certificates as a standard clause in tender and procurement documents by infrastructure providers (i.e. local governments, TSRA, government agencies).	All tender documents relating to relating to high biosecurity risk activities compulsorily require Hygiene certificates.	TSRA, TSIRC, TSC, NPARC, government agencies	On-going	Absorbed	Not started
P 2.3	Require Hygiene Certificates as a standard condition of approvals for development activities (including bulk building materials, machinery and equipment) on Torres Strait islands.	All approvals for development activities on Torres Strait islands require Hygiene certificates.	TSIRC, TSC, NPARC	On-going	Absorbed	Not started
P 2.4	Use biosecurity hygiene declarations where required.	Operational protocols are in place. Biosecurity hygiene declarations Issued for at risk activities.	TSRA, TSIRC, TSC, NPARC, BQ	On-going	Absorbed	Not started
P 2.5	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 arriving and leaving islands.	TSRA, TSIRC, TSC, NPARC, TS&NPA BWG	On-going	Not Funded	Not started
P 2.6	Conduct inspections on machinery, equipment and vehicles accessing Torres Strait islands.	Biosecurity officers' involvement in inspections negotiated and agreed with DAWR. Biosecurity officers inspect machinery, equipment and vehicles on departure from islands moving south.	NAQS	On-going	Absorbed	Partly underway for machinery, equipment and vehicles leaving islands for mainland Australia

P.3 Continue surveillance activities through on-going weed, pest animal and plant and pest animal disease surveys and research to identify and prioritise threats						
P 3.1	Conduct biosecurity monitoring and survey programs to monitor compliance and map the occurrence of declared pests.	Ongoing compliance, monitoring and surveys undertaken.	NAQS, BQ, TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
P 3.2	Monitor changes in prevalence of general environmental pests for evidence of sleeper weeds becoming problematic.	Continual monitoring and action as required.	All	On-going	Absorbed	Underway
P 3.3	LSMU rangers and relevant Council staff provided with records of new weeds detected after NAQS survey programs finalised.	LSMU rangers and relevant Council staff have up to date weed survey information to inform weed management prioritisation.	NAQS, TSRA, TSIRC, TSC, NPARC	Ongoing	Absorbed	Underway
P 3.4	LSMU rangers and relevant Council staff accompany NAQS survey staff to gain weed identification skills.	LSMU rangers and relevant Council staff have improved weed identification and survey skills. NAQS staff notify rangers of upcoming survey visits.	NAQS, TSRA, TSIRC, TSC, NPARC	Ongoing	Absorbed	Underway
P 3.5	LSMU rangers ensure that suspected new weeds are collected and verified before management actions are undertaken.	LSMU rangers have up to date weed information to inform weed management decisions.	NAQS, TSRA, TSIRC, TSC, NPARC	Ongoing	Absorbed	Underway
P 3.6	Establish a Weed Spotters Regional Coordinator to be a local contact for weed-related queries throughout the region and facilitate identifications and documentation of new, emerging or just unusual plants and weeds.	Weed Spotters Regional Coordinator position established.	DSITI, TSRA, NAQS	Ongoing	Not funded	Underway
P.4 Keep areas free from biosecurity threats to maintain healthy environments						
P 4.1	Regulate illegal dumping of rubbish, pest plant material, domestic animals through an awareness program.	A strategy for discouraging illegal dumping developed and implemented.	TSIRC, TSC, NPARC, TSRA	On-going	Absorbed	Not started
P 4.2	LSMU rangers and relevant Council staff regularly undertake land patrols to monitor biosecurity incursions in weed and pest animal (especially cane toad) free areas.	No new weed or pest animal incursions occur.	NAQS, TSRA, TSIRC, TSC, NPARC	On-going	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 relevant Council officers. Advice provided on Queensland Government major projects. Incorporate pest information into staff induction programs.	TSRA, TSIRC, TSC, NPARC	Ongoing	Absorbed	Underway in the TSC area but not in other Local governments
P 4.4	Introduce and enforce contractual approval obligations for preventing introduction and spread of biosecurity threats during construction and maintenance activities.	Obligations built into new contractor tender arrangements and auditing procedures.	All	Ongoing	Absorbed	Not started
P 4.5	Develop and implement a process for reacting to notifications of new pests.	Response is based on biosecurity risk.	TSISAG, BQ, TSRA, TSIRC, TSC, NPARC	Ongoing	Absorbed	Not started
P 4.6	Torres Strait local governments encourage transport, machinery contractors and bulk material suppliers to adopt biosecurity prevention strategies to keep pests from reaching and from moving between Torres Strait islands and be compliant with the *Biosecurity Act 2014*.	No new weeds or pest animals are detected on islands.	TSIRC, TSC, NPARC, TSRA, Transport and machinery and bulk materials providers.	Ongoing	Absorbed	Not started

Outcome 2: CONTROL existing and limit the spread of new and emerging weed infestations, pest animals and diseases of plant and pest animal outbreaks

STRATEGY REFERENCE NO.	IMPLEMENTATION ACTIONS	HOW WILL SUCCESS BE MEASURED	WHO IS INVOLVED	TIMEFRAME	RESOURCING	ACTION STATUS
C.1 Support the implementation of the expanded biosecurity management in the Torres Strait region						
C 1.1	Undertake a coordinated approach to biosecurity management in partnership with island communities to target specific species.	The establishment and implementation of targeted programs in partnership with the Community.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
C 1.2	Continue to support LSMU Rangers, relevant Council staff to implement biosecurity management by providing adequate resources.	Rangers, and relevant Council staff implement biosecurity management in the Torres Strait region.	TSRA, TSIRC, TSC, NPARC, Working on Country Program	On-going	Absorbed	Underway
C.2 Manage high priority weeds, pest animals and pests and diseases of plants and animals identified in Working on Country Ranger plans and relevant Local Government Biosecurity Management Plans						
C 2.1	LSMU rangers, NPARC Apudthama rangers and relevant Council staff undertake a coordinated approach with the community to target specific species (e.g. pest animal programs).	The establishment of targeted programs in partnership with the Community.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
C 2.2	Control biosecurity threats in island communities and surrounding disturbed areas and roadsides.	Active biosecurity management being implemented.	TSRA, TSIRC, TSC, NPARC, Regional communities and residents	On-going	Absorbed	Underway
C.3 Target new and emerging weeds, pest animals and plant and animal diseases on detection to limit their establishment and spread						
C 3.1	LSMU rangers and relevant Council staff manage emerging biosecurity risks in a timely manner to limit establishment and spread.	Emerging biosecurity risks managed.	NAQS, BQ, TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Not started
C.4 Develop and implement compliance obligations in accordance with the provisions of the *Biosecurity Act 2014*						
C 4.1	Develop and implement compliance policies, procedures and programs.	Ongoing compliance procedures enforced.	TSIRC, TSC, NPARC	On-going	Absorbed	Underway
C 4.2	Develop and maintain a register of enforcement activities pursuant to *Biosecurity Act 2014* requirements.	Register maintained as per *Biosecurity Act 2014* requirements.	TSIRC, TSC, NPARC	On-going	Absorbed	Underway
C 4.3	Enforce the general biosecurity obligation in the *Biosecurity Act 2014* for priority species identified in the individual Island Biosecurity Management Profiles	General biosecurity obligation enforces for priority species in islands.	TSIRC, TSC	On-going	Absorbed	Underway
C 4.4	Review codes, policies, management plans and operational procedures to ensure compliance with the Island Biosecurity Action Plans.	Advice provided during codes, policies, management plans and operational procedures review and ensure consistency with relevant sections of the *Biosecurity Act 2014*.	TSIRC, TSC, NPARC	On-going	Absorbed	Underway

C.5 Initiate local declarations for weeds, pest animals and diseases listed in the *Biosecurity Act 2014* or enforce general biosecurity obligations for specified unlisted priority weeds, pest animals and diseases of plants and animals when warranted						
C 5.1	Implement local declarations or general biosecurity obligations for high priority weeds (ie. Leucaena) and pest animals (i.e. cane toads) to limit their spread beyond existing occurrences.	Local declarations initiated where and when warranted.	TSIRC, TSC, NPARC, TSISAG, BQ	On-going	Absorbed	Underway
C 5.2	Raise awareness of the implications of local biosecurity declarations with Torres Strait regional communities.	Torres Strait regional communities aware of local declaration implications.	TSIRC, TSC, NPARC, TSISAG, BQ	On-going	Absorbed	Underway

Outcome 3: Build the KNOWLEDGE and SKILLS of Torres Strait communities to respond to biosecurity threats

KS.1 Collaboratively develop materials and methods to raise awareness of biosecurity issues affecting Torres Strait regional communities						
KS 1.1	Organise displays and events to raise awareness of weeds and pest animals including Weedbuster Week, Makem Garden events, field days, workshops and forums, free tree giveaways programs, World Environment Day festival etc.	Delivery of a number of environmental events and activities across the region.	NAQS, TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
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, island community meetings etc. Weed information disseminated.	BQ, TSRA, TSIRC, TSC, NPARC	On-going	Absorbed / specific funding may be required	Underway
KS 1.3	Develop species specific communication and education material and conduct targeted communication and education programs to engage communities in supporting management of infestations.	Up to date species specific communication and education materials available and easily accessible to communities.	BQ, NAQS, TSRA, TSIRC, TSC, NPARC	On-going	Absorbed / specific funding may be required	Underway
KS 1.4	Work with Tagai State College to make available materials and programs to introduce biosecurity management and natural resource management into Torres Strait school curriculum.	Information developed made easily accessible to schools.	BQ, NAQS, TSRA	On-going	Absorbed	Underway
KS.2 Distribute relevant biosecurity information, tools and knowledge to meet the needs of Torres Strait regional communities						
KS 2.1	Produce a calendar of weed flowering and seeding, seasonal pest animal behaviour and other seasonal aspects of biosecurity management.	Calendar for the region developed.	All	On-going	Absorbed / specific funding may be required	Underway
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, TSRA	On-going	Absorbed / specific funding may be required	Underway
KS 2.3	Produce fact sheets and other publications as required.	Up to date resources available and accessible.	BQ, TSRA	On-going	Absorbed / specific funding may be required	Underway
KS 2.4	Produce maps indicating distribution, extent and densities of prohibited, restricted and identified priority environmental weeds for Torres Strait islands.	Maps updated progressively using existing mapping software.	TSRA	On-going	Absorbed	Underway

Outcome 3: Build the KNOWLEDGE and SKILLS of Torres Strait communities to respond to biosecurity threats (*continued*)

STRATEGY REFERENCE NO.	IMPLEMENTATION ACTIONS	HOW WILL SUCCESS BE MEASURED	WHO IS INVOLVED	TIMEFRAME	RESOURCING	ACTION STATUS
KS.3 Train relevant local government officers and/or Indigenous Land and Sea Rangers in pest identification, monitoring and best practice biosecurity management including compliance enforcement, Chemcert techniques, chemical baiting 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.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
KS 3.2	Relevant Council staff and LSMU rangers with on ground pest management roles obtain and maintain licenses and accreditations applicable to their duties.	Licenses that may be obtained by staff include ACDC, Humane Destruction, Manual of uniform traffic control devices, Workplace Health and Safety, Senior First Aid, Authorised Officer, Vertebrate Pesticide.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
KS 3.3	Conduct workshops and training to build capacity of relevant Council staff and rangers in facilitation, community engagement; pest ID, particularly in relation to uncommon species (including marine pests) and species that are not currently known to occur but have the potential to occur in the Torres Strait.	Workshops and training available through existing programs such as Landcare, National Aquatic Weed Management Group. Annual pest plant/animal workshops held.	TSRA, TSIRC, TSC, NPARC, BQ, NAQS	On-going	Absorbed / specific funding may be required	Year 1-2 priority
KS 3.4	Provide compliance training for authorised officers.	Identified staff have competencies updated.	BQ, TSIRC, TSC, NPARC	On-going	Absorbed / specific funding may be required	Underway
KS 3.5	Build capacity of all field personnel to identify and respond to new pest incursions.	Training opportunities available for rangers, relevant Council staff.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
KS.4 Adopt innovative ways to motivate Torres Strait regional communities to actively participate in biosecurity management						
KS 4.1	Promote participation in community based pest management activities.	Participation increased in existing programs.	TSRA, TSIRC, TSC, NPARC, BQ, NAQS	On-going	Absorbed / specific funding may be required	Year 2
KS 4.2	Provide support to community groups that undertake pest management activities.	Groups supported by TSRA, TSIRC, TSC, NPARC through programs i.e.grants program.	TSRA, TSIRC, TSC, NPARC	On-going	Funded through grants program	Underway
KS 4.3	Provide opportunities for community participation in research and data collection activities by taking to traditional owners on country.	Research and data collection undertaken by a number of stakeholders through existing TSRA LSMU programs.	TSRA, NAQS	On-going	Absorbed	Underway
KS.5 Conduct research to improve understanding and knowledge about biosecurity threats, including collecting information about language names and the traditional use of weeds						
KS 5.1	Identify priority research areas and compile a prospectus of possible research projects.	Areas identified where knowledge of species biology and ecology is limited.	TSRA, TSIRC, TSC, NPARC, BQ, RI	On-going	Absorbed	Year 1-2

KS 5.2	Collaborate with research partners to identify research funding opportunities.	Research funding secured.	TSRA, BQ, RI	On-going	Absorbed / specific funding may be required	Year 1-2
KS 5.3	Incorporate TEK as a component of research projects, where applicable and appropriate.	TEK incorporated into research projects.	TSRA, BQ, RI	On-going	Absorbed / specific funding may be required	Year 1-2

Outcome 4: Foster and support a COORDINATED APPROACH to biosecurity management in the Torres Strait

CA.1 Convene bi-annual (and others as required) Torres Strait Invasive Species Advisory Group (TSISAG) meetings to maximise opportunities for collaboration, coordination and knowledge sharing to implement the Plan						
CA 1.1	Conduct bi-annual TSISAG meetings and others as required to decide on annual Plan Implementation Plan and monitor, evaluate and report (MER) on implementation progress.	TSISAG meeting convened. Annual Plan Implementation Plan finalised. MER process conducted on Plan implementation..	TSRA (as Secretariat)	2 meetings per year	Absorbed	Underway
CA.2 Build strong partnerships supporting collective effort to address biosecurity priorities through data and resource sharing and policy and procedural commitment						
CA 2.1	Maximise efficiency and efficacy of biosecurity management activities by coordinating actions with key Torres Strait regional stakeholders.	Actions undertaken in partnership with other stakeholders where appropriate.	TSRA, TSIRC, TSC, NPARC, BQ, NAQS, RI	Commence Year 1 and then on-going	Absorbed	Underway
CA 2.2	Involve local communities in site-based management of priority weeds and pest animals on Torres Strait islands and NPARC communities where appropriate.	Local communities involved through community environment programs. Identify local 'champion' on each island.	TSRA, TSIRC, TSC, NPARC, BQ, NAQS	On-going	Absorbed	Underway
CA 2.3	Maintain effective communication about new and emerging biosecurity threats with BQ and NAQS.	Relationships with BQ and NAQS maintained.	TSRA, TSIRC, TSC, NPARC, BQ, NAQS	On-going	Absorbed	Underway
CA.3 Identify and develop opportunities to share resources and data across organisations in the Torres Strait region to address biosecurity priorities						
CA 3.1	Investigate opportunities for TSISAG communication and marketing strategy.	Investigation undertaken.	TSISAG, TSRA	On-going	Absorbed	Not started
CA 3.2	Include commitments to biosecurity management in stakeholder strategic and operational plans.	Increase in collective funding/project opportunities.	All	On-going	Absorbed	Underway
CA 3.3	Contribute data to state pest mapping and data collection initiatives.	Relevant data included in Pest Central.	All	On-going	Absorbed	Not started
CA 3.4	Communicate the availability of resources, materials and services to land managers to contribute to managing biosecurity threats.	Community meetings are utilised to communicate the availability of resources etc.	All	On-going	Absorbed	Not started

Outcome 4: Foster and support a COORDINATED APPROACH to biosecurity management in the Torres Strait *Continued*

STRATEGY REFERENCE NO.	IMPLEMENTATION ACTIONS	HOW WILL SUCCESS BE MEASURED	WHO IS INVOLVED	TIMEFRAME	RESOURCING	ACTION STATUS
CA.4 Compile an inventory of resources available and identify gaps in biosecurity management across the region						
CA 4.1	Compile a list of (relevant) stakeholders and their roles and responsibilities.	A list of defined roles and responsibilities.	All	On-going	Absorbed	Underway
CA 4.2	Conduct and audit of resources available across the region to deal with biosecurity issues.	A list of all resources available including personnel and equipment.	All	On-going	Absorbed	Underway
CA 4.3	Identify gaps in resources across the region with regard to biosecurity management.	A list if identified gaps in resourcing across the region.	All	On-going	Absorbed	Underway

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

MER.1 Utilise a standardised system for collecting, identifying and mapping the location of weed species						
MER 1.1	Promote a standardised system for collection, analysis and sharing of weed distribution and management data.	Standardised weed mapping system established.	TSISAG	On-going	Absorbed	Underway
MER 1.2	Standardised system for collection, analysis and sharing of weed distribution and management data implemented across the Torres Strait.	Standardised weed mapping system implemented.	TSISAG	On-going	Absorbed	Underway
MER.2 Map weed infestations and survey pest animal populations and habitat extent annually as part of Indigenous Land and Sea Ranger Workplans and Councils' Operational Plans						
MER 2.1	Establish a regular mapping and monitoring program for weeds, pest animals and diseases of plants and animals.	Pest mapping regularly undertaken as part of LSMU ranger work plan. Treated areas monitored and recorded for pest reoccurrence.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
MER 2.2	Undertake biosecurity surveys on priority inhabited islands and uninhabited islands where biosecurity threats are known to occur.	Biosecurity surveys undertaken and threats assessed.	TSRA, TSIRC, TSC, NPARC	On-going	New funding required	Not started
MER.3 Monitor and evaluate the effectiveness of treatment techniques to ensure optimum management outcomes inform future activities						
MER 3.1	Follow up on biosecurity management actions to assess management success.	Monitoring program established.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Not started
MER 3.2	Continue to evolve and adopt emerging best practice biosecurity management techniques.	Best practice techniques adopted.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway
MER.4 Evaluate progress on the implementation of Torres Strait Biosecurity Management Strategies						
MER 4.1	TSISAG undertakes an annual evaluation of plan's implementation.	Review undertaken and report prepared.	TSISAG, TSRA	Annually	Absorbed	Not started
MER 4.2	Biosecurity management is conducted using adaptive management approach.	Landscape approach used to managing pests.	TSRA, TSIRC, TSC, NPARC	On-going	Absorbed	Underway

9 Monitoring, Evaluation and Reporting

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

Adaptive management underpins the systematic approach adopted in the 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.

9.1 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.

Monitoring can happen in a number of ways including direct project progress reports, on-ground inspections of project progress, dedicated monitoring programs and community and organisational feedback. All organisations, communities and individuals involved in biosecurity management in the Torres Strait have a role in monitoring progress of implementation.

The TSISAG will provide the vehicle for the coordination of monitoring to provide a complete picture on the results of Plan implementation. It is intended that reporting on monitoring Plan implementation actions will be a permanent TSISAG meeting agenda item.

9.2 Plan Evaluation

The success of the Plan implementation will be measured by the achievement of deliverables for each of the five outcomes and their respective strategies and actions, including implementation of the NPARC Pest Management Plan and the respective Island Biosecurity Action Plans 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. 4.1). This will require a separate meeting of the TSISAG to undertake an evaluation of the Plans success on an annual basis.

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 island communities to continue activities).

It is the responsibility of the TSISAG to review the evaluations provided for each of the Implementation Plan strategies and actions in the Plan, including those listed in Island Biosecurity Action 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, Torres Strait communities, Biosecurity Queensland and funding providers.

9.3 Reporting Progress

Reporting implementation progress will be a permanent TSISAG agenda item, with all participating organisations providing updates on their contributions to implementing actions.

9.4 Review/Revision of the Plan

The context 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 the Implementation Plan Tables in Section 8.4 of the Plan and the accompanying Island Biosecurity Action Plans be living documents that are reviewed annually by the TSISAG, and updated as necessary, to ensure implementation actions continue to accurately reflect community aspirations, current knowledge of biosecurity threats and legislative or policy changes, priorities and funding programs.

The TSISAG 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 future 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 by the TSISAG, the Plan will be updated by a nominee/s of the TSISAG. Any amendments to the *Biosecurity Act 2014 (Qld)*, 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.

9.5 Development of New Plan

A comprehensive review of the Plan, including evaluation of the success of the Plan implementation, will be undertaken by the TSISAG, or nominee, 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 five years of this Plan will be incorporated into the new document.

Appendix 1: List of References

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Appendix 2:
Weeds and Pest Animal Distribution Lists

Torres Strait Islands Regional Council Weeds (Restricted matters in *Biosecurity Act 2014*)

Common Name	Scientific Name	Badu	Boigu	Dauan	Erub	Iama	Mabuyag	Masig	Mer	Mua	Poruma	Saibai	Ugar	Warraber	Hammond
African tulip tree	*Spathodea campanulata*	X			X					X					
Bellyache bush	*Jatropha gossypifolia*	X	X												
Chinese apple	*Ziziphus mauritiana*				X										
Giant parramatta grass	*Sporobolus fertilis*	X													X
American rat's tail grass	*Sporobolus jacquemontii*	X													
Lantana	*Lantana camara*		X		X	X		X	X		X		X	X	
Pond Apple	*Annona glabra*	X	X				X					X			
Prickly pear	*Opuntia stricta*			X						X					X
Purple rubber vine	*Cryptostegia madagascariensis*	X	X				X			X	X	X			X
Sicklepod	*Senna obtusifolia*				X	X	X					X			
Singapore daisy	*Sphagneticola trilobata*	X		X	X	X	X	X	X	X	X	X	X	X	X
Yellow bells	*Tecoma stans*	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yellow oleander	*Cascabela thevetia*			X				X							X

Torres Strait Islands Regional Council Priority Environmental Weeds

Common Name	Scientific Name	Badu	Boigu	Dauan	Erub	Iama	Mabuyag	Masig	Mer	Mua	Poruma	Saibai	Ugar	Warraber	Hammond
Annual mission grass	*Cenchrus pedicellatus subsp. unispiculus*	X		X	X		X	X	X	X		X	X		
Brazilian Joyweed	*Alternanthera brasiliana*	X	X	X	X	X	X		X	X		X	X		X
Bundled pigeon flower	*Desmanthus pernambucanus*					X									
Butterfly pea	*Clitoria ternatea*	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Castor oil bush	*Ricinus communis*				X	X		X	X	X	X			X	
Candle bush	*Senna alata*	X	X	X	X	X	X		X	X			X		X
Coral berry	*Rivina humilis*				X				X				X		
Coral vine	*Antigonon leptopus*	X			X		X			X					
Cupid's flower	*Ipomoea quamoclit*	X	X		X	X	X			X			X		X
Green shrimp plant	*Ruellia blechum*				X				X			X			
Glory lily	*Gloriosa superba*	X	X		X	X	X	X	X		X	X		X	X
Grader grass	*Themeda quadrivalvis*			X	X	X		X				X			
Leucaena	*Leucaena leucocephala*	X	X	X	X			X	X	X	X	X	X	X	X
Navua sedge	*Cyperus aromaticus*	X													
Neem tree	*Azadirachta indica*									X				X	X
Praxelis	*Praxelis clematidea*	X			X	X	X		X	X					
Rubber bush	*Calotropis gigantea*			X						X	X				
Rubber tree	*Manihot carthaginensis*			X											X

Scarlet flower	*Ipomoea hederifolia*	X		X	X	X	X	X	X	X	X		X	X	X
Sensitive plant	*Mimosa pudica*	X	X	X	X	X	X	X	X	X		X		X	X
Sisal	*Agave spp.*			X	X	X	X	X			X	X	X	X	X
Siratro	*Macroptilium atropurpureum*	X	X	X	X	X	X	X	X	X	X	X		X	X
Snake vine	*Merremia dissecta*	X							X						X
Snakeweed	*Stachytarpheta jamaicensis*	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Thatch grass	*Hyparrhenia rufa*	X								X					
Tropical kudzu	*Pueraria phaseoloides*			X								X			
Kudzu (Weskepu)	*Pueraria montana var. lobata*			X	X		X		X	X		X	X		X

NOTE: The weeds contained in this table have been selected by Barbara Waterhouse and Stephen McKenna (NAQS), Corey Bell (Biosecurity Queensland), Mark Geyle (TSRA LSMU) and David Fell (Botanist, Fell Environmental) as the priority environmental weeds requiring on-going management.

Torres Strait Islands Regional Council Environmental Weeds

Common Name	Scientific Name	Badu	Boigu	Dauan	Erub	Iama	Mabuyag	Masig	Mer	Mua	Poruma	Saibai	Ugar	Warraber	Hammond
Bell weed	*Dipteracanthus prostratus*				X	X				X					
Bristly star burr	*Acanthospermum hispidum*									X					
Calopo	*Calopogonium mucunoides*	X		X		X	X			X					X
Caltrop*	*Tribulus cistoides*									X	X			X	
Giant panic grass	*Megathyrsus maximus var. maximus*			X						X		X	X		
Hyptis	*Hyptis suaveolens*	X	X	X	X	X	X	X	X	X	X	X	X	X	X

* Locally invasive native species

Torres Strait Islands Regional Council Priority Environmental Weeds *(continued)*

Common Name	Scientific Name	Badu	Boigu	Dauan	Erub	Iama	Mabuyag	Masig	Mer	Mua	Poruma	Saibai	Ugar	Warraber	Hammond
Joint vetch	*Aeschynomene americana*								X	X					
Khaki weed	*Alternanthera pungens*				X				X				X		
Mexican sunflower	*Tithonia diversifolia*				X								X		
Milkweed	*Euphorbia heterophylla*	X			X		X	X				X			
Mother-in-law's tongue	*Sanseviaria trifasciata var. trifasciata*	X		X	X	X	X	X	X		X		X		X
Mother-of-millions	*Bryophyllum pinnatum*							X					X		
Porcupine flower	*Barleria prionitis*		X												
Hophead philipine violet	*Barleria lupulina*										X			X	
Whitehead broom	*Spermococe verticillata*							X		X				X	
Wynn cassia	*Chamaecrista rotundifolia*	X		X	X	X				X					

NOTE: The weeds contained in this table have been selected by Barbara Waterhouse and Stephen McKenna (NAQS), Corey Bell (Biosecurity Queensland), Mark Geyle (TSRA LSMU) and David Fell (Botanist, Fell Environmental) as environmental weeds requiring on-going monitoring as they have the potential to rapidly increase their extent and density.

Torres Shire Council Weeds (Restricted matters in *Biosecurity Act 2014*)

Common name	Scientific name	Prince of Wales	Thursday	Horn
Giant parramatta grass	*Sporobolus fertilis*		X	X
American rat's tail grass	*Sporobolus jacquemontii*		X	
Lantana	*Lantana camara*		X	
Pond apple	*Annona glabra*	X	X	X
Prickly pear	*Opuntia stricta*			X
Purple rubber vine	*Cryptostegia madagascariensis*			X
Sicklepod	*Senna obtusifolia*		X	X
Singapore daisy	*Sphagneticola trilobata*	X	X	X
Thunbergia	*Thunbergia grandiflora*		X	
Yellow bells	*Tecoma stans*	X	X	X
Yellow oleander	*Cascabela thevetia*	X	X	X

Torres Shire Council Priority Environmental Weeds

Common name	Scientific name	Prince of Wales	Thursday	Horn
Annual mission grass	*Cenchrus pedicellatus subsp. unispiculus*		X	X
Brazilian joyweed	*Alternanthera brasiliana*	X	X	X
Butterfly pea	*Clitoria ternatea*	X	X	X
Candle bush	*Senna alata*	X	X	X
Coral vine	*Antigonon leptopus*		X	X
Cupid's flower	*Ipomoea quamoclit*	X	X	X
Glory lily	*Gloriosa superba*	X		X
Leucaena	*Leucaena leucocephala*	X	X	X
Navua sedge	*Cyperus aromaticus*		X	X
Neem tree	*Azadirachta indica*	X	X	X

Torres Shire Council Priority Environmental Weeds *(continued)*

Common name	Scientific name	Prince of Wales	Thursday	Horn
Praxelis	*Praxelis clematidea*	X		X
Scarlet flower	*Ipomoea hederifolia*	X	X	X
Sensitive plant	*Mimosa pudica*	X	X	X
Sisal	*Agave sisalana*	X	X	
Siratro	*Macroptilium atropurpureum*	X	X	X
Snake vine	*Merremia dissecta*	X	X	X
Snakeweed	*Stachytarpheta jamaicensis*	X	X	X
Kudzu (Weskepu)	*Pueraria montana var. lobata*		X	

NOTE: The weeds contained in this table have been selected by Barbara Waterhouse and Stephen McKenna (NAQS), Corey Bell (Biosecurity Queensland) and David Fell (Botanist, Fell Environmental) as the priority environmental weeds requiring on-going management.

Torres Shire Council Other Environmental Weeds

Common name	Scientific name	Prince of Wales	Thursday	Horn
Calopo	*Calopogonium mucunoides*		X	X
Giant panic grass	*Megathrysus maximus var. maximus*	X	X	X
Hyptis	*Hyptis suaveolens*	X	X	X
Mother-of-millions	*Bryophyllum pinnatum*			X
Mother-in-law's tongue	*Sansevieria trifasciata*	X	X	

NOTE: The weeds contained in this table have been selected by Barbara Waterhouse and Stephen McKenna (NAQS), Corey Bell (Biosecurity Queensland) and David Fell (Botanist, Fell Environmental) as environmental weeds requiring on-going monitoring as they have the potential to rapidly increase their extent and density.

Torres Strait Uninhabited Islands Priority Environmental Weeds

Common Name	Scientific Name	Campbell	Dalrymple	Nepean	Marsden	Dugong	Poll	Burra	Ulu	Pulu	Maza Guiya	Waral Kawa
Coral berry	*Rivina humilis*	X	X	X								
Corky passionfruit	*Passiflora suberosa*	X	X	X								
Hyptis	*Hyptis suaveolens*		X									
Lantana	*Lantana camara*	X	X	X	X							
Leucaena	*Leucaena leucocephala*		X									

NOTE: The weeds contained in this table have been selected by Barbara Waterhouse and Stephen McKenna (NAQS), Corey Bell (Biosecurity Queensland), Mark Geyle (TSRA LSMU) and David Fell (Botanist, Fell Environmental) as environmental weeds requiring on-going monitoring as they have the potential to rapidly increase their extent and density.

Torres Strait Islands Regional Council Pest Animals

Common Name	Scientific Name	Badu	Boigu	Dauan	Erub	Iama	Mabuyag	Masig	Mer	Mua	Poruma	Saibai	Ugar	Warraber	Hammond
Black rat	*Rattus ratttus*				X				X		X				
Brown rat	*Rattus norvegicus*									X					
Feral cat	*Felis catus*	X	X	X	X		X		X	X	X			X	X
Wild dog	*Canis familiaris*	X	X						X	X		X			
Feral horse	*Equus caballus*	X								X					
Feral pig	*Sus scrofa*	X					X			X					X
Pacific rat	*Rattus exulans*								X						
Rusa deer	*Cervus timorensis*		X									X			X
Climbing perch	*Anabas testudineus*		X									X			

Torres Shire Council Pest Animals

Common name	Scientific name	Prince of Wales	Thursday	Horn	Friday
Black rat	*Rattus rattus*		X	X	
Cane toad	*Rhinella marina*	X	X	X	
Feral cat	*Felis catus*	X	X	X	
Wild dog	*Canis familiaris*	X		X	
Feral goat	*Capra hircus*	X			
Feral horse	*Equus caballus*	X			
Feral pig	*Sus scrofa*	X			
Rusa deer	*Cervus timorensis*	X			X
Feral cattle	*Bos taurus*	X			

Torres Strait Uninhabited Islands Priority Pest Animals

Common Name	Scientific Name	Campbell	Dalrymple	Nepean	Dugong	Poll	Burra	Ulu	Pulu	Maza Guiya	Waral Kawa	Sassie	Gebar
Black rat	*Rattus rattus*										X		
Feral cat	*Felis catus*											X	
Feral pig	*Sus scrofa*												X

Appendix 3: Draft Terms of Reference for the Torres Strait Invasive Species Advisory Group

Purpose

To provide a forum for participation by major stakeholders in weeds and pest animal management within the Torres Strait Region.

To facilitate communication, feedback, advice, integration and support to members and the broader groups they represent on pest management issues and responses of relevance at the regional level.

To support and participate in the development and implementation of the Torres Strait Regional Biosecurity Plan across the Torres Strait region.

To discuss possibilities for regional projects to submit for funding.

To facilitate the implementation of co-ordinated approaches to management of pests at the regional level (e.g. sharing of resources).

To collaborate with research parties to identify and direct research priorities.

Membership

One or more representatives from each of the following organisations:

Torres Shire Council

Torres Strait Islands Regional Council

Northern Peninsula Area Regional Council

Torres Strait Regional Authority

Australian Department of Agriculture and Water Resources

Queensland Department of Agriculture and Fisheries (Biosecurity Queensland)

Cape York Natural Resource Management Ltd

Operation

The Torres Strait Invasive Species Advisory Group (TSISAG) will meet in-person and/or by video/ teleconference twice per year. Meetings will be hosted on a rotating basis by representatives from each stakeholder group or by TSRA.

Where the nominated representative is unable to attend a particular meeting of the TSISAG, a nominated proxy is permitted to attend in their place. Other representatives from stakeholder organisations may be invited to attend TSISAG meetings by TSISAG members as needed.

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 on Plan implementation is to be tabled as a standing agenda item at every TSISAG meeting. The final agenda will be circulated to all TSISAG 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 TSISAG members within 2 weeks of any meeting. Comments on the minutes will be accepted for a period of one week after dispatch, after which the minutes will be finalised based on any comments and circulated at least 3 working days prior to the next scheduled meeting of the TSISAG. Minutes and actions are to be formally confirmed at the start of each TSISAG meeting.

A rolling actions list with assigned responsibilities and timeframes is to be generated and updated following each TSISAG meeting.

Appendix 4: Island Biosecurity Action Plans

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