5.14. BIOSECURITY MANAGEMENT PLAN

REPORT AUTHOR(S)	Peter Logan, Coordinator Public Spaces
GENERAL MANAGER	Michael Kriedemann, Acting General Manager Operations
DEPARTMENT	Infrastructure Services

RECOMMENDATION

That Council resolves to adopt the Douglas Shire Biosecurity Management Plan and the Douglas Shire Council Invasive Plants and Animals Surveillance Program.

EXECUTIVE SUMMARY

The purpose of the Douglas Shire Biosecurity Management Plan is to bring together all sectors of the local community to manage invasive plants and animals. It does this by outlining the key responsibilities, roles and desired outcomes required under the *Biosecurity Act 2014* for the whole of the Douglas Shire area. It aims to benefit the community through preventing or reducing the impacts of pests and weeds on the economy, environment and people of the area through:

- Addressing the obligations under the *Biosecurity Act 2014*;
- Prioritisation of invasive pests and prevent the introduction and spread of invasive plants and animals within Douglas Shire;
- Identifying the roles and responsibilities of all stakeholders and providing direction on managing biosecurity risks;
- Building partnerships and enable better use of resources available within the community and across all land managers; and
- Better coordination between all stakeholders, including integrated catchment management approaches, state-wide land protection strategies and management of conservation areas.

The plan identifies the goal for managing biosecurity in the Douglas Shire Council as:

"All stakeholders working together to implement ongoing, coordinated and effective biosecurity management across the Douglas Shire Council area."

BACKGROUND

On the 1st of July 2016 the *Biosecurity Act 2014* superseded the *Land Protection (Pest and Stock Route Management) Act 2002*. Under section 48(1) of the *Biosecurity Act 2014* the primary function of local government is to ensure both prohibited and restricted invasive biosecurity matter are managed within the local government area.

The Douglas Shire Biosecurity Management Plan 2017-2021 will guide the management of all invasive biosecurity matter and locally declared pests in the Douglas Shire Council area. The plan provides management outcomes for specific high priority pests.

These management outcomes are outlined in the pest specific strategies and have been developed by the Biosecurity Working Group based on priority, knowledge of distribution, feasibility, achievability and the existing and potential impacts on the biosecurity considerations (human health, social amenity, the economy or the environment) in the local area.

The management outcomes guide or set the standard for the actions and measures considered reasonable and practical by the Douglas Shire Community that will help in addressing the biosecurity risk posed by these pests and achieve the desired local management objectives.

COMMENT

The general biosecurity obligation (GBO) is one of the core principles of the Biosecurity Act and represents a major shift in thinking – from prescriptive to outcome based management. The GBO is an overarching principle that requires all persons who deal with biosecurity matter to take all reasonable and practical measures to prevent or minimise the risk. A range of legislative instruments have been built into the Biosecurity Act to ensure there is capacity to respond appropriately to different levels of biosecurity risk and different stages of incursion.

Biosecurity programs for surveillance or prevention and control are generally for use in non-emergency situations where there is, or is likely to be biosecurity matter that poses a significant biosecurity risk in the area to which the program applies. Biosecurity programs may also be used to prevent the entry or establishment of biosecurity matter in a particular area. The programs enable local governments to be proactive in identifying and responding to a pest, disease or other biosecurity matter that poses a significant biosecurity risk. Once a program is established, authorised officers have additional powers of entry and control that are not available under normal circumstances. The program must be authorised by the Chief Executive Officer of the Local Government. A copy of the program must be published on Council's website.

PROPOSAL

That Council resolves to adopt the Douglas Shire Biosecurity Management Plan and the Douglas Shire Council Invasive Plants and Animals Surveillance Program.

FINANCIAL/RESOURCE IMPLICATIONS

Currently Council employs six full time persons to conduct on ground works on invasive biosecurity matter. A team of four focus on invasive pest plants (weeds) and two staff target pest animals. Douglas Shire Council works closely with all stakeholders on several joint agency programs implementing a *nil tenure* approach to ensure successful outcomes for the shire. The works are funded as core business with funds allocated each year in the operational budget.

RISK MANAGEMENT IMPLICATIONS

Under section 48(1) of the Biosecurity Act the main function of local government is to ensure both prohibited and restricted invasive biosecurity matter are managed within the local government area. The Douglas Shire Council covers an area from Degarra in the north, west to the Mt Windsor Tableland and south to Ellis Beach. The area is fringed by Wet Tropics Areas to the west and the Great Barrier Reef Marine Park to the east. These iconic resources combined with a strong agricultural sector make the entire region important both nationally and globally.

Given that biosecurity risks directly threaten biodiversity, agriculture and social amenity on a very large scale, there is a great responsibility to understand and mitigate the impacts of weeds and pest animals in a context that encompasses a wide range of land uses and expectations.

Implementation of the Douglas Shire Biosecurity Management Plan and the Douglas Shire Council Invasive Plants and Animals Surveillance Program will provide a timely and effective response to protect our economy, environment and community.

SUSTAINABILITY IMPLICATIONS

Economic: Weeds cost Queensland an estimated $600 million every year. The negative economic impacts of weeds include:

- competition with pastures leading to reduced stocking capacity and erosion;
- toxicity to stock;
- competition with crops for water and nutrients;
- increased stock mustering costs;
- loss of ecotourism values;
- impacts (of aquatic weeds) on water quality and irrigation; and
- management costs arising from the use of physical, mechanical and chemical control methods.

For example, one weed species - Miconia *(Miconia calvescens, M. nervosa m. racemosa)* - costs Australia more than $2 million each year in control programs. Whyanbeel Valley has the largest infestation of Miconia in Australia. Evidence of the economic and environmental impacts of this weed in other countries supports the need to maintain eradication as the main objective of the program.

Environmental: Weeds can degrade natural vegetation and impact on biodiversity. Mexican Bean Tree (C*ecropia pachystachya, C. palmata and C. peltata)* known to occur in Whyanbeel, has the potential to invade and dominate moist forest ecosystems in north Queensland, possibly causing serious and irreversible damage to the World Heritage Area. Gamba grass *(Andropogon gayanus)* recently discovered at Mowbray, is a useful cattle feed in parts of far north Queensland, but also has significant negative impacts, including replacing native plants, increasing fire risk and ecosystem modification.

Social: Social impacts include effects on human health, recreation, safety and aesthetics. Siam weed has a significant impact on human health in heavily infested Wet Tropics areas of Queensland. People can suffer serious allergic reactions, such as dermatitis and rhinitis or asthma, on contact with the plant or its pollen.

Many aquatic weeds, such as salvinia (Salvinia molesta), cause safety hazards. Small children have drowned when they assumed the floating carpet of salvinia was solid ground. Aquatic weeds also interfere with recreational activities (such as swimming and fishing) and reduce the aesthetic value of lakes and streams.

Additionally, weed control is an essential component of road and railway corridor maintenance, especially with regard to safety considerations.

CORPORATE/OPERATIONAL PLAN, POLICY REFERENCE

This report has been prepared in accordance with the following:

Corporate Plan 2014-2019 Initiatives:

Theme 3 – Improve Environmental Performance

3.1.3 Develop management plans for Council's parks and reserves including coastal reserves and foreshore areas.

Theme 4 – Engage, Plan, Partner

4.2.4 - Identify opportunities to form partnerships with Traditional Owners.

COUNCIL'S ROLE

Council can play a number of different roles in certain circumstances and it is important to be clear about which role is appropriate for a specific purpose or circumstance. The implementation of actions will be a collective effort and Council's involvement will vary from information only through to full responsibility for delivery.

The following areas outline where Council has a clear responsibility to act:

Regulator Meeting the responsibilities associated with regulating activities through legislation or local law.

CONSULTATION

Internal: The Douglas Shire Biosecurity Management Plan was presented at the Councillor workshop on Tuesday 5th September 2017.

External: The Biosecurity Working group (BWG) was formed in 2017 to reflect the change in legislation and to ensure the Douglas Shire Biosecurity Management Plan is developed by and for the entire community. A meeting was held on 26 July 2017 to assess the draft plan. The BWG considered all pests in relation to the range of land management priorities in the Douglas Shire Council area. To avoid conflict when setting priorities, the (BWG) has adopted a prioritisation framework that takes into account knowledge of the pest's ecology, invasion potential, control methods available and other factors, while keeping in mind the need for long-term sustainability of the range of land uses in the Douglas Shire Council.
The BWG consists of representatives from the following groups:

- Douglas Shire Council;
- Far North Queensland Region of Council's;
- Department of Agriculture and Fisheries;
- Queensland Parks and Wildlife Service;
- Jabalbina Aboriginal Corporation;
- Mossman Canegrowers;
- AgForce Daintree; and
- Mossman Botanical Gardens.

The Douglas Shire Council Invasive Plants and Animals Surveillance program has been drafted in conjunction with and forwarded to the Department of Agriculture and Fisheries for stakeholder review.

COMMUNITY ENGAGEMENT

A community engagement process was undertaken to inform the public about the Douglas Shire Biosecurity Management Plan. Council invited comments and feedback from the community for a period of two weeks. Engagement closed 4:30pm 29 September 2017. At the time of closure no responses were received through the formal process.

One response was received outside of the formal engagement process criticising the plan, mainly regarding the priority weeds in the Daintree Lowlands.

ATTACHMENTS

1. FINAL VERSION Biosecurity Management Plan Douglas Area **[5.14.1]**
2. DSC Surveillance program final **[5.14.2]**

DOUGLAS SHIRE COUNCIL

DOUGLAS SHIRE BIOSECURITY MANAGEMENT PLAN

2017-2021

All stakeholders working together to implement ongoing , coordinated and effective biosecurity management across the Douglas Shire Area

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Executive Summary

The purpose of the Douglas Shire Biosecurity Plan (BP) is to bring together all sectors of the local community together to manage invasive plants and animal. It does this by outlining the key responsibilities, roles and desired outcomes required under the Biosecurity Act 2014 for the whole of the Douglas Shire area. In doing so it aims to benefit the community through preventing or reducing the impacts of pests and weeds on the economy, environment and people of the area through:

- Addressing the obligations under the Biosecurity Act 2014 for all stakeholders.
- Prioritization invasive pests and prevent the introduction and spread of invasive plants and animals within Douglas Shire based on best practice.
- Identifying the roles and responsibilities of all stakeholders involved and providing direction on managing biosecurity risks
- Building partnerships and enable better use of resources available within the community and across all land managers
- Better coordination between all stakeholders, including integrated catchment management approaches, state-wide land protection strategies and management of conservation areas.

The plan identifies the goal for managing biosecurity in the Douglas Shire Council as:

"All stakeholders working together to implement ongoing, coordinated and effective biosecurity management across the Douglas Shire Council area."




Introduction

The Douglas Shire Council, covers the area from Degarra in the north, west to the Mt Windsor Tableland and south to Ellis Beach. The area is fringed by Wet Tropics Area to the west and the Great Barrier Reef Marine Park to the East. These iconic resources combined with a strong agricultural sector make the entire region important both nationally and globally.

Given that biosecurity risks directly threaten biodiversity, agriculture and social amenity on a very large scale, there is a great responsibility to understand and mitigate the impacts of weeds and pest animals in a context that encompasses a wide range of land uses and expectations.

With established pest species the challenge is to ensure all stakeholders are meeting their obligations.The numerous weed, vertebrate pests, exotic bees and tramp ants incursions highlight the vulnerability of our region to the introduction of biosecurity matter and the strategic importance of preventing the spread of biosecurity matter across Australia.

Given the favorable conditions in the Wet Tropics Bioregion, the Douglas Shire area is faced with a diverse range of weed and pest animal issues. The favorable climate provides ideal habitat for a huge variety of noxious weeds and an ideal harborage for large populations of pest animals with its rich resources and year-round water and cover.

The Douglas Shire Biosecurity Management Plan 2017-2021 is written to in accordance with the new provisions of the Biosecurity Act 2014. The Biosecurity Management Plan is subject to ongoing review every four years, with necessary updates being made on annual basis to reflect changes in resources, pest threats, legislation or policy.

The Douglas Shire Council may formally adopt this Biosecurity Plan through a resolution of council.

Pest Management Planning

A program to stop land degradation by pest invasion is a major undertaking. It cannot be achieved simply by allocating finance in the annual budget. Without setting goals and defining the means of achieving them, any gains will be due to good luck rather than good management.

When clear guidelines are not communicated it is difficult to track progress toward pest management outcomes. It is also more difficult for landowners and managers to understand what is required of them to deliver their general biosecurity obligation. This Biosecurity Plan forms a policy document which in effect is a reference tool for field and administrative staff from within Douglas Shire Council, but also applies equally to all landholders and managers across the Douglas Shire Area.

Land Management in Douglas

Land in the Douglas Shire Council area is primarily managed for one or more of the following range of values:

- Residential /industrial
- Tourism and recreation
- Grazing
- Cropping and horticulture
- Nature Conservation
- Cultural Heritage
- Quarries

The Biosecurity Working Group

The Douglas Shire Pest Working Group DSPWG was formed in 1997 and was rebadged in 2017 as the Douglas Shire Biosecurity Working Group DSBWG to reflect the change in legislation. The group will continue to be open to all stakeholders to ensure Douglas Shires Biosecurity Management Plan is developed by and for the entire community.

The DSBWG considered all pests in relation to the range of land management priorities in the Douglas Shire Council area. The challenge in the development of the BP is to balance the needs of rural land uses with those expectations from other residents and the growing concern for natural resources within the community. To avoid conflict when setting priorities, the DSBWG has adopted a prioritisation frame work that takes into account knowledge of the pest's ecology, invasion potential, control methods available and other factors, while keeping in mind the need for long-term sustainability of the range of land uses in the Douglas Shire area. In addition the DSBWG has prioritized an alert list for pests are not yet present in the area but are considered important for their huge potential impacts on the natural or productive values in our region. The cost of keeping these pests out of the region must be taken into account. For more details on the framework refer to the Local Government Pest Assessment, Prioritisation and Planning Framework at www.fnqroc.qld.gov.au

The role of the Biosecurity Working Group is:

- To acknowledge the roles and responsibilities of all stakeholders.
- To provide advice to the Douglas Shire Council, Regional and State agencies and organizations on the biosecurity management priorities and requirements of land managers and owners of the Douglas Shire area.
- Identify research priorities and operational needs of the DSLGA and ensure the DSBWG is represented at the NAMAC who Regional Pest Management Sub-committees for the purpose of the co-investment model.
- Develop and review a Biosecurity Plan for invasive biosecurity matter for all land tenure in the DSLGA.
- Prioritise invasive biosecurity matter and local priority pest species and develop locally specific obligations to ensure pests are being managed and to a standard that is accepted by the community.
- Ensure all stakeholders formally know, accept and acknowledge their roles and responsibilities in relation to the Biosecurity Management Plan.
- Ensure key stakeholders are involved in monitoring, reviewing, and coordinating the implementation of the Pest Management Plan.

The current Biosecurity Working Group consists of representatives from the following groups:

NAME	ORGANISATION
Peter Logan	Douglas Shire Council
Brett Kilpatrick	Douglas Shire Council
Melissa Mitchell	Douglas Shire Council
Travis Sydes	Far North Queensland Region Of Councils
Michael Graham	Department of Agriculture and Fisheries
Jochem Van der Reijden	Department of Agriculture and Fisheries
Andrew Hedges	Queensland Parks and Wildlife Service
David Sherwell	Queensland Parks and Wildlife Service
Kylie Goodall	Queensland Parks and Wildlife Service
Rickie Burchill	Jabalbina Aboriginal Corporation
Drew Watson	Mossman Canegrowers
Laurie Taylor	AgForce Daintree
John Anich	Mossman Botanical Gardens

Legal Requirements Regarding Pests

Invasive biosecurity Matter and Locally Declared Pests

On the 1st of July 2016 the Biosecurity Act 2014 superseded the Land Protection (Pest and Stock Route Management) Act 2002. Under section 48(1) of the Biosecurity Act the main function of local government is to ensure both prohibited and restricted invasive biosecurity matter are managed with in the local government area. According to section 48(3) of the Act, local government's local laws (Queensland Local Government Act 1993) may provide for the management of invasive plants and animals whether or not they are prohibited or restricted matter.

48 Main function of local government

(1) The main function under this Act of each local government is to ensure that the following biosecurity matter (***invasive biosecurity matter*** for the local government's area) are managed within the local government's area in compliance with this Act-

(a) prohibited matter mentioned in schedule 1, parts 3 and 4;

(b) prohibited matter taken to be included in schedule 1, parts 3 and 4 under a prohibited matter regulation or emergency prohibited matter declaration;

(c) restricted matter mentioned in schedule 2, part 2;

(d) restricted matter taken to be included in schedule 2, part 2 under a restricted matter regulation.

The Biosecurity Act 2014 lists schedules for prohibited and restricted matter that can be viewed at: https://www.legislation.qld.gov.au/LEGISLTN/CURRENT/B/BiosecurityA14.pdf

Biosecurity Plans

The *Douglas Shire Biosecurity Management Plan 2017-2021* will guide the management of all invasive biosecurity matter and locally declared pests in the Douglas Shire Council area as per section 53 of the Act. Section 53 (2)

To fulfill these responsibilities, Council is expected to:

(a) Control invasive biosecurity matter on land under its control.

(b) Inspect private property to determine the presence of invasive biosecurity matter.

(c) Provide advice to landholders on appropriate pest control options.

(d) Carry out procedures to ensure control of invasive biosecurity matter on private property.

The State government is responsible for:

(a) Providing technical and management information and staff training to Council personnel.

(b) Ensuring that invasive biosecurity matter controlled on land under the control of other Government Departments.

The Biosecurity Act provides Authorised Officers a broad range of powers, and tools needed to ensure the level of response is appropriate to the level of biosecurity risk.

The Biosecurity Action Plan defines what council expects of individuals to discharge their **general biosecurity obligation (GBO)** regarding the priority invasive pests in specific locations.

The General Biosecurity Obligation

The general biosecurity obligation (GBO) is one of the core principles of the Biosecurity Act and represents a major shift in thinking – from prescriptive to outcome based management.

What is a general biosecurity obligation and who does it apply to?

The general biosecurity obligation (GBO) is an overarching obligation that requires all persons who deal with biosecurity matter or a carrier to take all reasonable and practical measures to prevent or minimise the risk.

. However, the obligation only arises when the person *knows or ought reasonably to know* that the biosecurity matter, carrier or activity pose or is likely to pose a biosecurity risk.

How is compliance with a GBO used to achieve local pest management outcomes?

The GBO imposes an obligation on all relevant persons – individuals, industry and government – to take an active role in preventing, managing and addressing biosecurity risks that relate to their activities. It provides a capacity for flexibility and ensures that the focus is on the management of biosecurity risk rather than following a prescribed process.

The Douglas Shire Council Biosecurity Plan provides management outcomes for specific high priority pests. These the management outcomes are outlined in the pest specific strategies and have been developed by the PWG based on priority, knowledge of distribution, feasibility, achievability and the existing and potential impacts on the biosecurity considerations (human health, social amenity, the economy or the environment) in the local area. The management outcomes guide or set the standard for the actions and measures thought to be reasonable and practical by the Douglas Shire Community that will help in addressing the biosecurity risk posed by these pests and achieve the desired local management objectives.

There may be circumstances when a person fails to take actions to discharge their GBO to manage a biosecurity risk.

An authorised officer determines, through risk-based decision-making (and following consultation with their manager/s), if the person has failed to take appropriate actions consistent with the

management outcomes stated in the Douglas Shire Council Biosecurity Plan to address that biosecurity risk.

The officer must be certain that the person responsible for the biosecurity matter understands the risk/s that must be mitigated. There may be a need for the officer to provide some education to the person. Following this, if the individual does not take steps to mitigate the risk, the officer would be in a position to consider issuing a biosecurity order.

The person then must take the actions stated in the Biosecurity Order to address the risk.

Biosecurity Orders

A biosecurity order is an enforcement tool that may be given to a person if an authorised officer reasonably believes that a person has failed, or may fail, to discharge their GBO (s373).

A person fails to discharge their GBO if they do not take 'all reasonable and practical measures' to mitigate a biosecurity risk.

A biosecurity order can direct a person to treat, control, eradicate, destroy or dispose of biosecurity matter or a carrier in a particular way, clean or disinfect something, stop using the place or remove something from the place.

A biosecurity order **must** be directed at ensuring the recipient discharges their GBO at the place; and **may** relate to a specific biosecurity matter. In addition, the biosecurity order may propose stated times or intervals for re-entry to the place, a vehicle or another place, to check compliance with the order; or state how the recipient may show that the stated action has been taken.

Draft BIOSECURITY ORDER - attached

Biosecurity Programs

Biosecurity programs (surveillance or prevention and control programs) have been implemented by the Department of Agriculture and Fisheries (WEBLINK) and Douglas Shire Council (WEBLINK) to enable proactive management of a weeds and pest animals.

The Douglas Shire Council surveillance program is intended to provide a mechanism for undertaking proactive surveillance to determine the presence or absence of stated invasive biosecurity matter, monitoring compliance with the Act or the effect of measures taken in response to a biosecurity risk, or levels of biosecurity matter in a carrier – within Douglas Shire Council local government area.A copy of the surveillance program can be obtained ……..(WEBLINK) or purchased through council for the price of printing…..

The Douglas Shire Council prevention and control program/s are aimed at managing or reducing or eradicating a limited number high priority pests that currently pose a significant very risk to the biosecurity considerations of . A copy of the prevention and control programs can be obtained ……..(WEBLINK) or purchased through council for the price of printing…..

Invasive Biosecurity Matter

Prohibited Matter

Prohibited matter includes a range of invasive plants and invasive animals in the Act that have the potential to have significant impacts and are currently not present or known to be present in Queensland. (WEBLINK)

Identifying prohibited matter

It is the responsibility of all Queenslanders, as well as visitors from interstate and overseas, to be aware and take steps to prevent prohibited matter from entering our state. You will be expected to know about the prohibited matter that you may come across as part of your environment, business or hobby.

Reporting prohibited matter

It is an offence to deal with prohibited matter and fail to report its presence. If you become aware of prohibited matter or you believe, or ought reasonably believe, that something is prohibited matter you need to report it immediately to Biosecurity Queensland. You must also take all reasonable steps to minimise the risks of the prohibited matter and not make the situation worse. If you are unsure if it is prohibited matter, contact Biosecurity Queensland for more information on 13 25 23

Restricted Matter

Restricted matter is listed in the Act and includes a range of invasive plants and animals that are present in Queensland. These invasive plants and animals are having significant adverse impacts in Queensland and it is desirable to manage them and prevent their spread, thereby protecting un-infested parts of the State

Categories of restricted matter

There are seven categories for restricted matter, five of which are relevant to this plan each category places restrictions on the dealings with the biosecurity matter or requires actions to be taken to minimise the spread and adverse impact of the biosecurity matter.

For category 1 restricted matter there are requirements to report this matter to an inspector.

Category 1 Biosecurity Queensland needs to be made aware of this restricted matter to take action to contain and eradicate it. You must report category 1 restricted matter to a Department of Agriculture and Fisheries inspector within 24 hours of becoming aware of its presence.

Category 2 For category 2 restricted matter there are requirements to report this to an inspector or authorised person. You may reach an inspector or authorised person by contacting Biosecurity

Queensland on 13 25 23. Restricted matter is listed in Schedule 2 of the *Biosecurity Act 2014* (the Act). You may reach an authorised person by contacting Douglas Shire Council 07 40999444

Category 3 restricted matter must not be distributed or disposed. This means it must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is authorised in a regulation or under a permit.

Category 4 restricted matter must not be moved. To ensure that it does not spread into other areas of the state.

Category 5 restricted matter must not be possessed or kept under person's control. You may only keep this restricted matter under a permit of the Biosecurity Act 2014 or another Act.

Category 6 restricted matter must not be fed unless kept under a permit of the Biosecurity Act 2014 or another Act. Feeding for the purpose of preparing for or undertaking a control program is exempted.

There may be several restriction categories that apply to particular biosecurity matter.

Key Projects and Programs

The following key projects and programs from across the Douglas Shire area highlight the partnerships and programs that are currently underway and will be continued over the duration of this plan

Siam Weed Eradication Program

Goal: Locate all infestations within the Shire and control, with the aim to eradicate from the Douglas Shire Council Area.

Performance Indicator: Surveys of the entire Shire completed with all Siam Weed located mapped and controlled.

Strategic Action:

- To conduct annual surveys to locate and map Siam Weed within the Douglas Shire;

- To ensure that all infestations located are controlled;
- Promote individual landholders and other departments to control Siam Weed on their lands;
- Douglas Shire Council to facilitate public awareness programs with landholders in high risk areas
- To issue biosecurity orders to non-compliant landholders as required;
- Identify funding opportunities to assist in all of the above programs.

Project partners: Douglas Shire Council, Queensland Parks and Wildlife Service, landowners

Hiptage Eradication Program

Goal: In partnership with Queensland Parks and Wildlife Service locate all infestations within the Shire and control, with the aim to eradicate from the Douglas Shire Council Area.

Performance Indicator: Surveys completed within management areas, all Hiptage, mapped and treated with no reproductive events.

Strategic Action:

- To conduct annual surveys to locate and map Hiptage within the Douglas Shire;
- To ensure that all infestations located are controlled prior to seeding;
- Promote individual landholders and other departments to control Hiptage on their lands;
- Douglas Shire Council to facilitate public awareness programs with landholders in high risk areas
- Identify funding opportunities to assist in all of the above programs.

Project partners: Douglas Shire Council, Queensland Parks and Wildlife Service, landowners

Miconia Species (Four Tropical Weeds Eradication Program)

Goal: In partnership with the Four Tropical Weeds team locate and control all Miconia infestations within the Shire with the aim to eradicate.

Performance Indicator: Surveys completed within management areas, all Miconia species located, mapped and treated with no reproductive events.

Strategic Action:

- Participate in survey and control program
- To ensure that all infestations located are controlled prior to seeding;
- Assist or facilitate public awareness programs such as displays at local field days /talks with landholders in high risk areas;

Project partners: Four Tropical Weeds Eradication Program, Douglas Shire Council, Queensland Parks and Wildlife Service, Whyanbeel Community Group

Feral Pig Management Program

Goal: To implement a Shire-wide feral pig management program that minimises the environmental, social and economic impacts of feral pigs.

Performance Indicator: A reduction in complaints received regarding feral pig damage occurring within the Shire.

Strategic Action:

- To coordinate an effective feral pig trapping program within Douglas Shire
- Promote individual landholders and other departments on their lands and monitor populations and impacts of feral pigs

- To provide a 1080 baiting service where appropriate;
- To provide advice on best management practice to the community;

Project partners: Douglas Shire Council, Queensland Parks and Wildlife Service, landowners

Desired Outcomes

The desired outcomes proposed for this plan are consistent with those of the state weeds and pest animal strategies (developed in accordance with the requirements of the Biosecurity Act 2014 and are central to the success off biosecurity management activities.

Desired Outcome 1 - Stakeholders are informed, knowledgeable and are committed to pest weed and animal management.

Desired Outcome 2 - To ensure all stakeholders are strongly committed to implementing effective biosecurity management.

Desired Outcome 3 - Strategic directions are established, maintained and owned by all stakeholders.

Desired Outcome 4 - To prevent the introduction and establishment of new weeds and pest animals.

Desired Outcome 5 - Integrated systems for managing the impacts of established weeds and pest animals are developed

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Desired Outcome 1

"Stakeholders are informed, knowledgeable and have ownership of weed and pest animal management"

Objective - *To increase community, industry, agribusiness and government awareness of pests and their impacts*

Principle	Strategic Action	By Whom	Timeframe	Success Indicator
Awareness 	Provide draft BMP for PWG and public consultation/submissions.	DSC	2016	Draft posted on DSC web site. Submissions received.
	Submit BMP for adoption by Council.	DSC	2016	Adopted BMP and action plans published on DSC Web site. with linkages to FNQROC web site and DAF fact sheets.
	PMAC works together to promote weed and pest animal awareness across sectors and interest groups	All Stakeholders	Ongoing	Extension material available. Information circulated through existing networks
	Biosecurity displays are presented at the Field Days & other opportunities (i.e. Reef guardian Program, Canegrowers, Catchment Group meetings)	DSC, DAFF	Ongoing	Number of presentations made

Desired Outcome 2

"To ensure all stakeholders are strongly committed to implementing effective biosecurity management".

Objective- Establish long term commitment to pest weed and animal management and ensure compliance with the Act in pest weeds and pest animals management

Principle	Strategic Action	By Whom	Timeframe	Success Indicator
Commitment, Consultation and partnership	Maintain a working group of key stakeholders to develop and review plans and actions	Stakeholders	Annually	Meetings held and updates provided. Continued working partnerships
	Participate in delivery and hosting of taskforce operations under the regional taskforce MOU	DSC FNQROC	As required	Number of taskforces attended or hosted
	Participate in regional advisory and governance of Biosecurity (NAMAC)	DSC, DAF, FNQROC	Quarterly	Attend and contribute to quarterly NAMAC meetings
	Maintain and promote a Surveillance, Prevention and Control Programs for key projects and priorities	DSC	Annually	Pest Survey Program maintained and implemented
	Support State and Commonwealth pest management projects.	DSC DAF DERM	On going	State/Commonwealth projects supported.
	Support other *stakeholder projects where they align with the BMP.	DSC Landcare Terrrain	On going	Stakeholders, community groups supported.
	Utilise compliance where	DSC	As required	Compliance exercised

	necessary in line with principals in the Strategic Action Plans.		when necessary to achieve actions within the PMP.

Desired Outcome 3

"Strategic directions are established, maintained and owned by all stakeholders"

Objective- To create a coordinated and integrated planning framework for weed and pest animal management

Principle	Strategic Action	By Whom	Timeframe	Success Indicator
Planning, Integration	Ensure that the Biosecurity Management Plan is consistent with related strategies and plans	DSC, DAF, FNQROC	Annually	No inconsistencies between plans. 3) The level of attendance and participation of State Agency representation in planning meetings
	Participate and contribute to regional planning and advisory groups and forums (i.e. NAMAC)	DSC, DAF, FNQROC	As required	Number of meetings and events hosted or attended
	Annual review of action plan and management objectives by PMAC	Stakeholders	Annually	Timely review of action plans
	Support DSC Development Assessments. Promote pest issues and undesirable species to planning staff	DSC	On going	Vegetation plans are reviewed by informed staff. Undesirable species are not used. Developments meet legislative requirements with regards to pests.

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Desired Outcome 4

"Introduction spread and establishment of weeds and pest animals is prevented."

Objective- To prevent the introduction and establishment of new weeds and pest animals

Principle	Strategic Action	By Whom	Timeframe	Success Indicator
Prevention	Adopt weed prevention protocols	DSC, DAF	Ongoing	Occurrence of new weeds species
	Promote weed hygiene declarations for movement of harvesting and construction plant, and fodder.	DSC, DAF	Ongoing	Use of weed prevention declaration
	Promote early reporting of pest problems and respond to landowners complaints promptly	DSC, DAF	Ongoing	% of recurrence of target weeds
	Promote and participate in Rapid Response protocol	DSC,DAF	As required	

Desired Outcome 5

"Integrated systems for managing the impacts of established weeds and pest animals are developed."

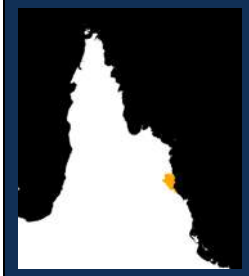
Objective - Adoption of best practice management techniques by stakeholder/land managers

Principle	Strategic Action	By Whom	Timeframe	Success Indicator
Best Practice Management 	Consider: timing, integrated, techniques, non-target damage, cost prevention, animal welfare, workplace health and safety, monitoring, research, operational procedures and chemical registration requirements in planning	Stakeholders	Ongoing	Feedback on the Pest Management Plan's comprehensive coverage of issues.
	Promote the use, awareness and availability of Best Practice Manuals	DSC, DAF, FNQROC	As required	Best Practice Manuals distributed
	Maintain and update pest management distribution and objectives. Contribute to Annual Pest Distribution Survey	DSC,DAF	Annually	Distribution and management objective mapping for priority pests and weeds remains current. GIS data shared freely between all stakeholders

Prioritisation of Pests in the Douglas Shire Area

The framework utilised by the working group in assessing and assigning the priorities of pests within this plan was developed within local government and adopted regionally by the FNQROC. The process of determining priorities was conducted by members of the pest plan working group prior to going to wider consultation. For more details on the framework refer to the Local Government Pest Assessment, Prioritisation and Planning Framework at www.fnqroc.qld.gov.au

Douglas Shire Council weed prioritisation		**Existing plans and priorities**			**Impacts and threats**				**Capacity to manage**		
		NATIONAL	STATE	LOCAL	Conservation/ Biodiversity	Riparian/ Aquatic	Agricultural/ Production	Residential/ Urban	Achievability	Current Extent	Total Score
	Miconia species	5	2.5	5	5	4	1	5	2	5	34.5
	Water Hyacinth	2.5	1.5	4	4	5	1	4	4	5	31
	Siam Weed	0	1.5	5	4	4	4	3	4	5	30.5
	Gamba grass	2.5	1.5	5	4	3	3	2	4	5	30
	Mexican bean tree	0	2.5	5	4	4	1	3	5	5	29.5
	Hiptage	0	1	4	5	5	2	5	4	3	29
	Pond Apple	2.5	1.5	5	4	5	3	1	3	3	28
	Water lettuce	0	1.5	4	4	5	1	4	3	5	27.5

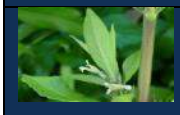
	Parthenium	2.5	1.5	5	3	2	3	1	4	5	27
	Salvinia	2.5	1.5	4	4	5	1	4	3	2	27
	Kudzu vine	0	1.5	3	4	4	2	3	3	5	25.5
	Venezualan Pokeweed	0	1	4	4	4	1	3	3	5	25
	Thunbergia Species	0	1.5	4	4	4	1	4	4	2	24.5
	Ivy Gourd	0	1	3	3	3	1	2	4	5	22
	Tobacco Weed	0	1.5	4	3	2	4	2	3	2	21.5
Douglas Shire Council pest animal prioritisation– Feb 2016 		**Existing plans and priorities**			**Impacts and threats**				**Capacity to manage**		
		NATIONAL	STATE	LOCAL	Conservation/ Biodiversity	Riparian/ Aquatic	Agricultural/ Production	Residential/ Urban	Achievability	Current Extent	Total Score
	Feral pigs	0	1.5	5	4	4	4	2	2	1	23.5
	Wild dogs	0	1.5	3	3	2	4	3	2	1	19.5
	Electric Ants	5	2.5	5	5	3	4	5	5	5	40.5

The following weeds are presumed eradicated from the area and are currently under monitoring to ensure they do not reoccur. Any suspected sightings of these weeds should be reported to DSC on 40999444.

MONITORING	Weed	Location	Where to watch out for it
	Alligator Weed	Port Douglas	Aquariums, waterways, gardens
	*Limnocharis flava*	Port Douglas, Wonga	Water features, gardens, nurseries,

Pest and weed alerts

If you suspect you have seen any of these pests and weeds in the Douglas Shire Area please report to the DSC on 40999444. For further information go to www.daff.qld.gov.au

ALERTS	Weed	Vicinity (State or Local Government Area)	Likely source and mode of spread
	Fireweed	Tablelands	Machinery, stockfeed, wind, roadside maintenance
	Kosters Curse	Mareeba, Cassowary Coast	Birds, water, machinery
	*Cabomba caroliniana*	Cairns, Cassowary Coast	Aquariums, Boats, fishing gear, water
	*Stevia ovata*	Tablelands	Machinery, wind, water
	*Hygrophila costata*	Cairns, Cassowary Coast, Hinchinbrook	Aquariums, water

	Neptunia – Water mimosa	Cairns	Food gardens, water
	Madras thorn	Cairns	Ornamental gardens
	Aleman grass	Cassowary Coast, Hinchinbrook	Grazing, stolons (cuttings)
	Yellow Crazy Ants	Cairns, Mareeba	Building / garden materials, machinery

Management zones

A management zoning approach has been adopted to communicate the management aims of this plan across the whole range of stakeholders that will need to be involved. The zoning approach is a graphics based hierarchy of actions that identifies the management and biological target for each management area. It is important that stakeholders understand both their role and their responsibilities in regard to the delivery of this pest management plan.

The zones in detail

The management zoning approach identifies five management zones. The first three are aimed at detecting, preventing and removing (eradicating) the target pest from the designated zone and are specifically targeted at managing the seeds and seed bank (or reproductive capacity in animals). The final two identify the options for managing established infestations to reduce their impacts and opportunities for further spread.

Management zone	Management target	Biological target
Managing incursions and new introductions		
Delimitation	*Report new outbreaks and sightings - determine the extent of the pest*	*Prohibit introduction or and reproduction*
Prevention	*Come clean go clean – keep weed and pest animal free areas clean*	
Removal (eradication)	*Be vigilant – remove all seeds (seedbank) plants and pest animals from the zone*	
Managing existing infestations and outbreaks		
Intensive control	*Think big and plan for the long term – reduce infestations to a size that can be removed*	*Limit infestation growth, spread and impacts*
Impact reduction (containment and asset protection)	*Maintain buffers and protect important places – protect assets and minimise the risk of spread*	

Managing incursions

Delimitation – knowing where it is (and isn't)

Delimitation is a deliberate action taken to determine whether a species is present or absent

Prevention – keeping clean areas clean

In a zoning plan prevention is a deliberate action taken to prevent species spreading to areas where they do not currently occur.It is also part of every best management practice for all pests, weeds and pathogens.

Removal (eradication) – removing all plants, seeds and seedbank

Eradication is a deliberate action taken to remove all individuals of a species including all propagules in the soil seed bank from within the zone

Managing infestations

Intensive control – preparing for a transition in management

Intensive control is a deliberate action taken to transition a management program from containment or asset protection to an eradication objective

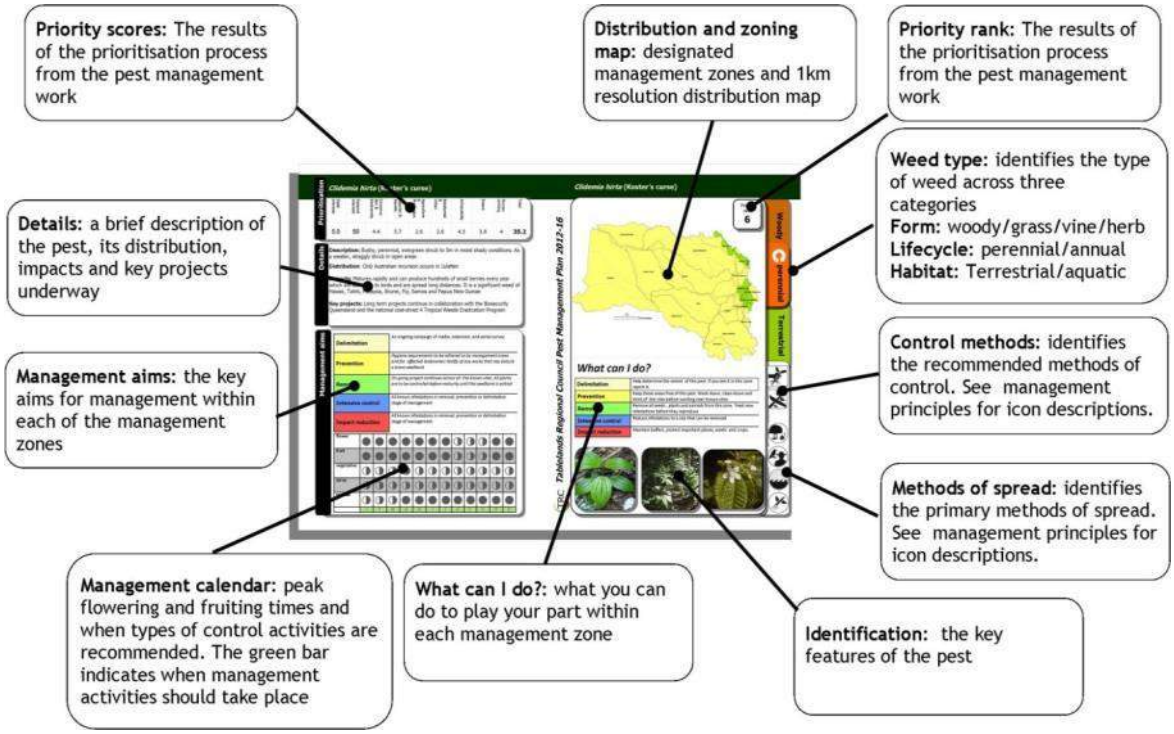
Impact reduction – protect important assets and reduce the spread to other areas

Containment is a deliberate action taken to prevent establishment and reproduction of a species beyond a predefined area

Reduction of impacts means deliberate action taken to reduce the impacts on an asset in a predefined area

Using the pest plan template

The pest plan template summarises the key information on each of the priority pests for the local government area pest management plan. More information on each of the fields within the template is included within the *management principles* sections of this pest management plan or in the *further information and links* section



Control and biology calendar

The management calendar identifies the optimum periods of activity in the life cycle of the pest as well as the ideal times to implement/or avoid different management strategies.

Biology & lifecycle	**x** **Peak**	**t** **First/last flush**	**p** **Occasional**	**y** **n/a**
Control and management	**x** **Optimal**	**t** **Good**	**p** **Marginal**	**y** **Not recommended**

Pest Management Principles

An understanding of management techniques and tools as well as the biology of the pest are important knowledge for all people involved in pest management. The following pages describe the key control methods and modes of dispersal which pest managers need to be aware of. The icons are included within the priority pest profiles in the following section.

Control Methods

(Text and icons adapted with kind permission from Matt Birch, Cairns Regional Council Pest Management Plan 2012)

Frill/Stem Injection

Herbicide may be directly applied to the vascular system of the plant by way of frilling or stem injection. Cuts are made in the bark of a tree or woody section of a vine so that access is opened to the cambium tissue and then herbicide is applied. Operators must be sure that the cuts are made low to the ground and that the cuts are made continuously around the perimeter of the trunk/ stem. It is common practice to stagger the cuts to maximise chemical application and to ensure that all of the vascular transport in the tree is disrupted. Cuts are made with an axe, or machete on a downward angle leaving a “frilly” scarf on the tree when done properly. The frilled notches aid in holding herbicide. In some applications, similar downward cuts can be made with a chainsaw. This technique is beneficial when trees are best left standing for follow up access, if felling is too complicated or restricted by resources. Note that dead trees and falling limbs can become a safety hazard during follow up work and during flood events. Chemical can be applied with an injection gun, low pressure spray pack or with a paint brush. Some trees that are known to sucker or coppice can be killed this way several weeks before felling, to kill the root system before felling.

Basal Bark

Basal Bark technique refers to the spraying of a lower truck (basal area) of a tree or vine with herbicide which is usually suspended in diesel. This mixture is suited to many weedy trees and is often a quick way of achieving a kill while leaving the tree standing.

This technique is not permitted in or close to water. When using basal bark technique, attention must be paid to manufacturer’s recommendations with regard to chemical rates and the maximum

basal diameter that the chemical can be applied to gain consistent kills. Operators commonly use low pressure “pump pack” type spray equipment to apply the chemicals.

Chainsaw/Cut stump

Felling trees and large woody weeds and vines is often the most thorough method to ensure consistent kills. Due to most plants’ ability to coppice, regrow or sucker, this method requires the application of herbicide to the freshly cut stump. It is important to apply the chemical quickly to the stump (within 10 seconds) to ensure that the tissue does not close over and prevent penetration of the herbicide. This method is common with chainsaw felling of large trees but is equally successful when treating smaller woody weeds and vines where cutting with sharp knife, secateurs or machete is followed quickly with application of a suitable herbicide. Always check label for permitted herbicide use or contact your Local Government LMO for advice regarding chemical application, permits and best practice.

Chop/Grub

Due to its labour intensiveness, chopping or grubbing is often overlooked a weed management practice. However, it remains an effective way of selectively removing weeds without chemicals. Using machetes, cane knives or hoes, operators can remove seed, flowers or even kill entire woody weeds or grasses. Many vines require chopping to gain access to roots and tubers where other methods can be deployed such as stem injection.

Drill/Stem Injection

Herbicide may be directly applied to the vascular system of the plant by way of drilling or stem injection. Holes are drilled in the bark of a tree or woody section of a vine so that access is opened to the cambium tissue. This technique is also used with tuberous vines.

Operators must ensure that the holes are drilled low to the ground and there are sufficient number if holes to kill the target species. Generally holes are drilled 5-10 cm apart all the way around the trunk. As with frilling, holes are drilled downwards to hold the chemical and when used with a 5ml injection gun, this technique results in less wasted chemical. Conversely, the drill and inject method is more time consuming and requires access to cordless drills and spare batteries which may not always be appropriate.

Stem injection is beneficial when trees are best left standing for follow up access, if felling is too complicated or restricted by resources. Note that dead trees and falling limbs can become a safety hazard during follow up work and during flood events. Chemical can be applied with an injection gun or low-pressure spray pack. Some trees that are known to sucker after felling can be killed this way several weeks before felling to ensure that the entire plant is killed.

Always check label for permitted herbicide use or contact your Local Government LMO for advice regarding chemical application, permits and best practice.

Improved Grazing Practices

Overgrazing can lead to depletion of desirable species and create other issues like compaction, and bare ground which provide opportunities for weeds to establish. Where

serious weeds invade pastures, often stock avoid these species leading to a dominance of woody weeds or unpalatable grasses. Continued intensive grazing or overgrazing can lead total destruction of pastures or complete domination by woody weeds i.e. Sicklepod. Careless weed hygiene practices can lead to movement of seeds with stock and trucks to other properties over long distances. Yarding stock for several days can minimise this problem when stock are exposed to major pastoral weeds. Washing down equipment is recommended prior to movement. Spelling paddocks and slashing weeds prior to seed set, spot spraying and grubbing can all be effective in controlling pastoral weeds. For property pest management planning contact your Local Government LMO or contact DEEDI for information regarding grazing and pasture management.

Hand Removal

Many weeds can be controlled by simple hand removal. This method can be used on small-scale infestations and/or in places where equipment cannot be accessed. Hand removal may be the only option where chemical use is not legal or appropriate i.e. Hand removing salvinia in small ponds, or hand pulling pine seedlings. On removal, it is important to dispose of the living plant material appropriately. This may involve bagging the waste, composting on site, or ensuring that the roots of the plants cannot access soil/water and re-shoot.

Foliar Spray

There are many herbicides registered for weeds and the most common method of application is spraying. Chemicals can be sprayed on the ground by hand, from a boom or from an aircraft or boat. Common methods of ground application include:

1) Low pressure application i.e. 20L pump up spray bottle.

2) 12v and petrol mechanised spray units i.e. PTO driven tractor spraying.

3) Controlled droplet application i.e. boom spraying

s a viable

The practice of spraying is complex and heavily regulated. Council employees must be licensed to spray herbicides on private and public lands and spray records must be kept in accordance with the Agricultural Chemical Distribution Control Act 1966 (ACDC Act). Herbicides, target species and situations for spraying are controlled by permitted uses listed on product labels. There are also off-label permits available that operators may observe under particular qualification. The Australian Pesticides and Veterinarian Medicines Authority (APVMA) administer all permits that relate to pest management related herbicides, fungicides, adjuvants and toxins. Always check label for permitted herbicide use or contact your Local Government LMO for advice regarding chemical application, permits and best practice.

Biocontrol

Biocontrol refers to the release of carefully selected natural pests of weeds and pest animals to assist in their management. They can be insects or diseases that target a certain part or lifecycle stage of the plant. Biocontrol can be a useful long term and low cost

strategy to either control or reduce the vitality of a pest plant and is best used in conjunction with management techniques. Some common biocontrol agents present in the region include the salvinia weevil, rabbit calici-virus, rubber vine rust and the giant sensitive plant psyllid.

Slashing

Slashing can be an effective tool in pasture management. Woody weeds, herbs and some grasses may be prevented from seeding by slashing at opportune times. For example, slashing sicklepod may be effective before setting seed to manage the potential seed bank. Using blunt blades or chains will smash stems minimising regrowth or recovery of the plant. Following up with spot spraying will minimise the use of expensive chemical and stop the annual seed cycle. It must be noted that this method can potentially spread seeds, so always carry out weed hygiene practices when moving machinery. I.e. Always wash down machinery and slasher decks.

Mechanical/Machinery removal

Large-scale infestations sometimes call for mechanised removal or control. Excavators, backhoes, mulching bobcats, aquatic harvesters or even bulldozers may be employed where funding permits. With large tree species, machinery may be required to clean up after chainsaw work. Often, weeds infestations are associated with eroded creek and riverbanks so best practice repair work often requires earthworks bank reinstatement, rock works and revegetation. Note: always wash down machinery to prevent the spread of seed and stem fragments.

Fire

Despite being labour, risk and planning intensive, fire can be a useful pest management tool. Fire can be used to:

1) Remove spoils from weed treatments including felled trees. Burn heaps may require attendance by earthworks machinery and fire crews.

2) Stimulate seed regeneration in certain seed banks.

3) Kill certain species where fuel loads allow a hot fire.

4) Kill dormant seeds.

Agricultural landholders and State Government land managers know the value of fire for broad acre weed control.

There is generally a limited window of opportunity for use of fire. Site preparation, permits, public notification and resources may limit its widespread use.

Exclusion Fencing/netting

Fencing is used to exclude animal pests throughout world, particularly to mitigate pest damage to agriculture. Although often considered an expensive option, fencing is sometimes a sound investment to:

1) Contain livestock or exclude predators.

2) Protect Crops from terrestrial pests such as pigs and rabbits.

3) Protect fruit orchards with netting where it is not viable to control the birds/bats that may try to eat the fruit.

Increasingly urban landholders are fencing to exclude pests such as wild pigs and dogs. Residents are advised to utilise netting to exclude access to urban roosts by exotic birds. Eradication of most naturalised vertebrate pests is not viable or cost effective, so exclusion is considered a logical control option. There are many materials available- some have been in production for over 100 years e.g. Chicken/bird wire, Pigwire/ringlock, barbed-wire, chain-wire, smooth wire, pickets, palings, colorbond and electric fences. An experienced agricultural fencer can advise and cost a suitable fence design that will exclude pests ranging from snails to horses.

Poison

There are special circumstances where poison may be approved for use on vertebrate pests. Commercial baits and poisons are available for rodents and insects at supermarkets. However, strict regulations control the distribution of poisons and toxins that may be used on larger pest animals. Dogs, cats, pigs, rabbits and foxes may be controlled under strict conditions with a toxin known as 1080 or fluoracetate. Use of 1080 is limited to lower density and agricultural areas and is distributed under regulation and guidance from local government, DEEDI and Queensland Health. A bait program must involve a community response, consultation, signage and observation of all policy direction.

Trapping

Trapping is a widely used control method for feral pigs in the wet tropics and to a lesser extent to manage wild dogs in close proximity to settlement. Trapping is done in accordance with well established guidelines relating to off target minimisation, firearms policy, humane treatment of animals, public/workplace health and safety and efficiency.

All queries regarding management of native wildlife should be directed to Queensland Parks and Wildlife Service QPWS.3

Shooting/hunting

Hunting is a popular sporting pursuit in the region. Despite its recreational appeal and popularity, hunting has generally proved to be an ineffective and at times, a disruptive pest management practice. Hunting either with dogs or firearms can be an effective *complement* to an integrated property pest management strategy. Some landholders use hunting as their primary animal control option to good effect, but usually when a population is very small. However, hunting is best utilised after effective trapping/baiting programs to remove any remaining individuals. More often though, uninvited hunters will target the biggest pigs and/or scatter them throughout an area making the whole population nervous and unpredictable. Urban fringe areas where inexperienced hunters/dogs often visit, pose a great challenge to landholders and Councils as these pigs are usually the hardest to trap. Aerial shooting is noted to be very effective in dry savannah to open woodland country but it is not suited to the Wet Tropics Area given the extensive cover and high residential population. Sniper style shooting can be effective when used with a feed

station on both dogs and on the occasional pig. Individual wild dogs can be singled out where foot trapping and baiting may be too indiscriminate.

Note: Council does not condone, practice or contract any form of dog based hunting, but recognises that it is a very common practice in agricultural and rural residential areas in the region.

Methods of Spread

(Text and icons adapted with kind permission from Matt Birch, Cairns Regional Council Pest Management Plan 2012)

Cuttings-Vegetative

Further to normal seed reproduction, many plants will reproduce from cuttings, stem or root fragments or even by leaf fragments. Some species reproduce only vegetatively. Many aquatic and riparian weeds reproduce from cuttings washed downstream with flood water.

Irresponsible and illegal dumping

A common way for plants and animals to escape and colonise natural areas is by accidental or at times intentional release and cultivation by people. Often people will travel long distances to dump vegetation to avoid a small tipping fee. Others will throw exotic cuttings and weeds over their back fence and into creeks.

Machinery and vehicles

Machinery of many forms can move plant material and pest animals. Slashers and earthworks equipment are most commonly blamed, but cars, 4wds, motorcycles, boats and caravans are all capable of moving pest plants and animals great distances.

People/Animals

By sticking to either peoples' clothes or animals' fur, some plants have adapted seeds that can move long distances. Many of these seeds also find themselves attached to car radiators; livestock tails and can easily travel interstate and even overseas.

34

Droppings

Many seeds have evolved as a food source for animals with the advantage of being relocated and dispersed in droppings. This can result in very difficult to predict and often relatively long distance dispersal patterns as pigs, cassowaries, cockatoos and bats all move certain fruits in various directions.

Water

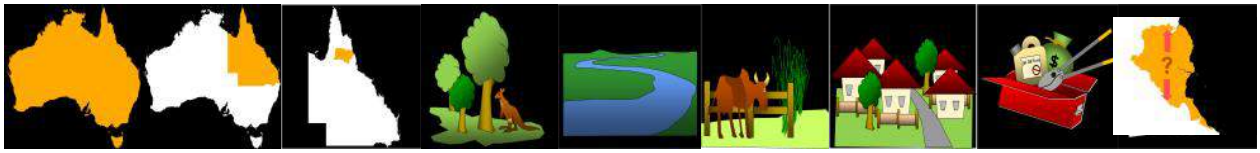
The Wet Tropics area is home to many aquatic species which are adapted to water based reproduction. Many weeds are adapted to benefit from annual floods to spread down a catchment. Seeds may float or they may send vegetative material and fragments with normal river flow or during annual flood events. Aquatic plants can also move across catchments attached to birds or boats.

Wind

Many plant species use wind as a seed dispersal mechanism. Seeds are lightweight and either wing shaped or adorned with hairs to ensure that upon release they will travel away from the parent plant. Light weight seeds often get caught on vehicles.

Canis lupis familiaris (Wild dog)

Priority



0.0/5	1.5/5	5.0/5	2.0/5	1.0/5	4.0/5	3.0/5	3.0/5	2.0/5

Details

Description: Wild dogs include dingoes, wild domestic dogs and hybrids

Distribution: Wild dogs are widespread in both the agricultural and natural landscape. They also frequently exist on the outskirts of towns and even within urban areas.

Impacts: Wild dogs can cause stock losses in calving season. They also often carry parasites and pathogens. Near towns they can cause nuisance and impact on domestic animals.

Key projects: In the Douglas Shire wild dogs are managed in response to need on a case by case basis. A coordinated approach to wild dog control is essential to prevent animals from areas with no control actions underway re-colonising controlled areas.

Management requirements

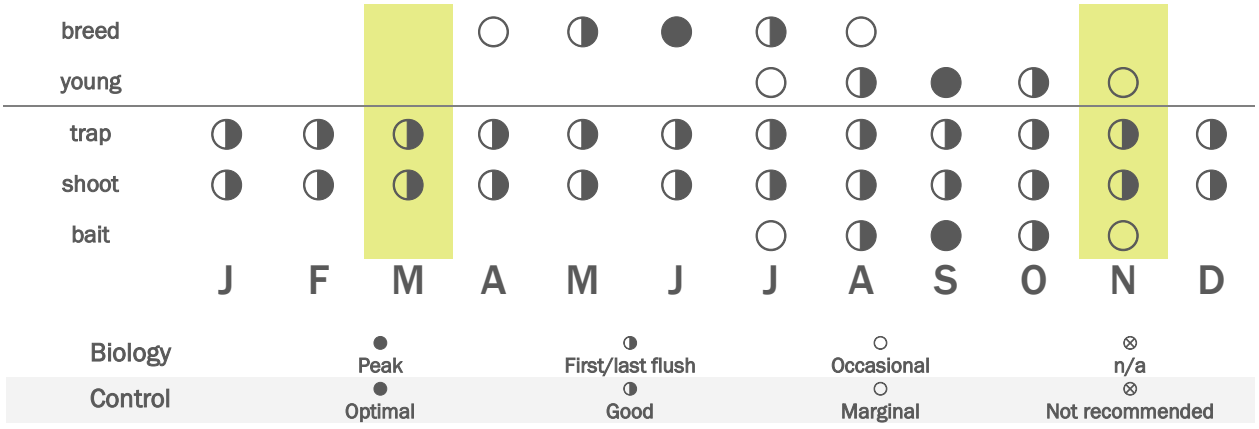
Asset protection

Wild dogs do have defined home territories but are able to cover large distances when moving to new areas either through competition for resources or by being pushed out of areas by more dominant animals.

In urban and settled areas Douglas Shire Council will respond to individual issues as they arise on a case by case basis. Whilst wild dogs are generally not aggressive to people they may display threatening behaviour in urban areas such as attacking domestic dogs, scavenging or stalking. Domestic pets and poultry are best protected by dog mesh fencing. Fencing also restrains your domestic animals and may assist in preventing other animals such as wallabies or pigs entering your property.

The biosecurity program does not include management of straying or problematic domestic dogs (including hunting dogs), These animals are domestic animals and are managed in accordance with Douglas Shire Councils Local Laws. For domestic dog queries contact Council on 07 4099 9444

Control Calendar



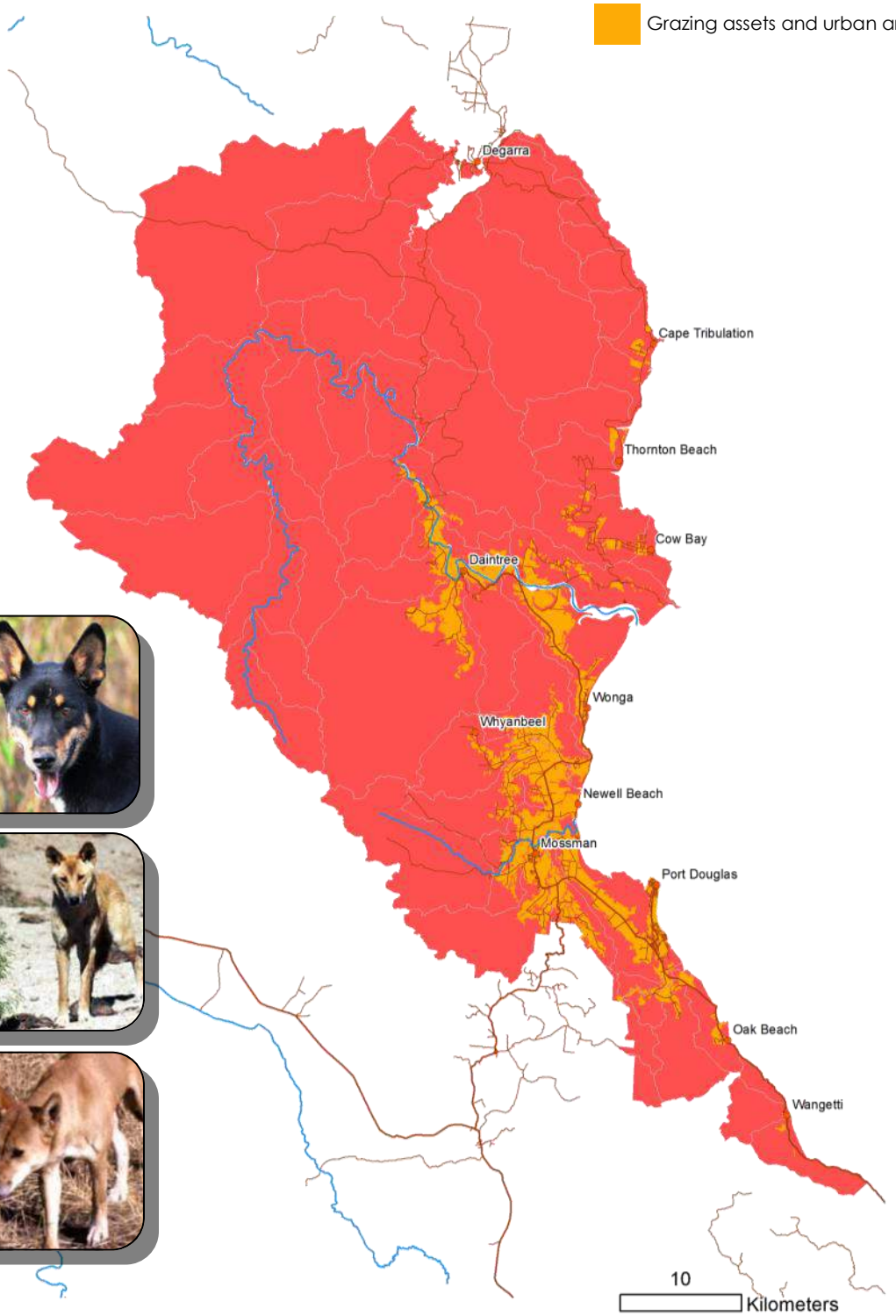
Canis lupis familiaris (Wild dog)

DOUGLAS SHIRE COUNCIL

Pest animal

Carnivore

Douglas Shire Biosecurity Management Plan 2017-21



Category

2

3

4

5

6

What is my biosecurity obligation?

Asset protection zone

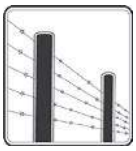
Dog proof fencing is by far the most effective measure of reducing the impacts of wild dogs on domestic stock and pets.

A range of control options from shooting, to trapping and baiting are used to control wild dogs when required.

Targeting control activities to deliver protection prior to calving in stock is the best way to reduce impacts on stock.

For domestic dog queries contact Council on 07 4099 9444

Control



For more information on management aims in each zone, refer to *Using the pest plan templates*

Sus scrofa (Feral Pig)

Priority

0.0/5	1.5/5	5.0/5	4.0/5	4.0/5	4.0/5	2.0/5	2.0/5	1.0/5

Details

Description: Feral pigs include all pigs ranging from typical black wild pigs to buff or spotted black or white which may resemble a typical farmed pig. By definition a feral pig is any pig which is not domesticated and is living in a wild state. They are generally nocturnal, and camp in thick cover during the day. Feral pigs are omnivorous and can range from 5 to 50 square kilometres. Feral pigs breed throughout the year often producing two weaned litters per year.

Distribution: Common and widespread within the Douglas Shire, particularly in the lowlands.

Impacts: Feral pigs damage crops, stock, property and the natural environment. They transmit disease and could spread exotic diseases such as foot and mouth if this was introduced to the country.

Key projects: A long-term shire wide program has been set up to assist the community to minimise the environmental, social and economic impacts of feral pigs.

Management requirements

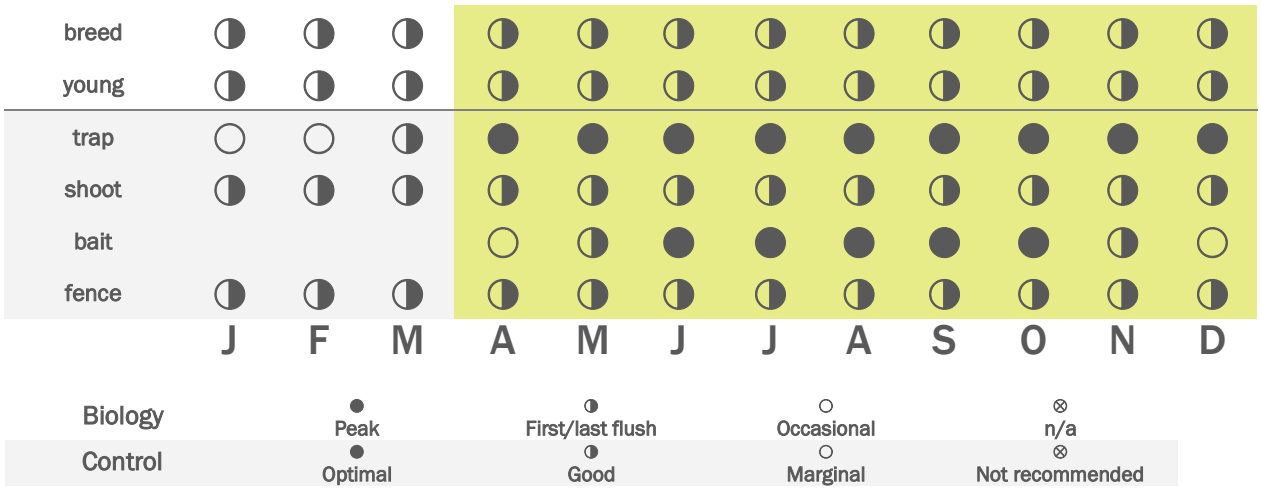
Asset protection

Feral pigs are considered to number around 24 million in Queensland and are one the most widespread and destructive invasive animals in the State.

The Douglas Shire Feral Pig Management Program is an ongoing trapping and baiting project across the lowlands of the Douglas Shire Council Area. The program targets the protection of environmental, and agricultural assets. Landholders wishing to participate in the program should contact Douglas Shire Council on 07 4099 9444

The program also assists to reduce the impacts of feral pigs on the natural environment by targeting trapping programs.

Control Calendar



Sus scrofa (Feral Pig)

DOUGLAS SHIRE COUNCIL

Pest animal

Omnivore

Category

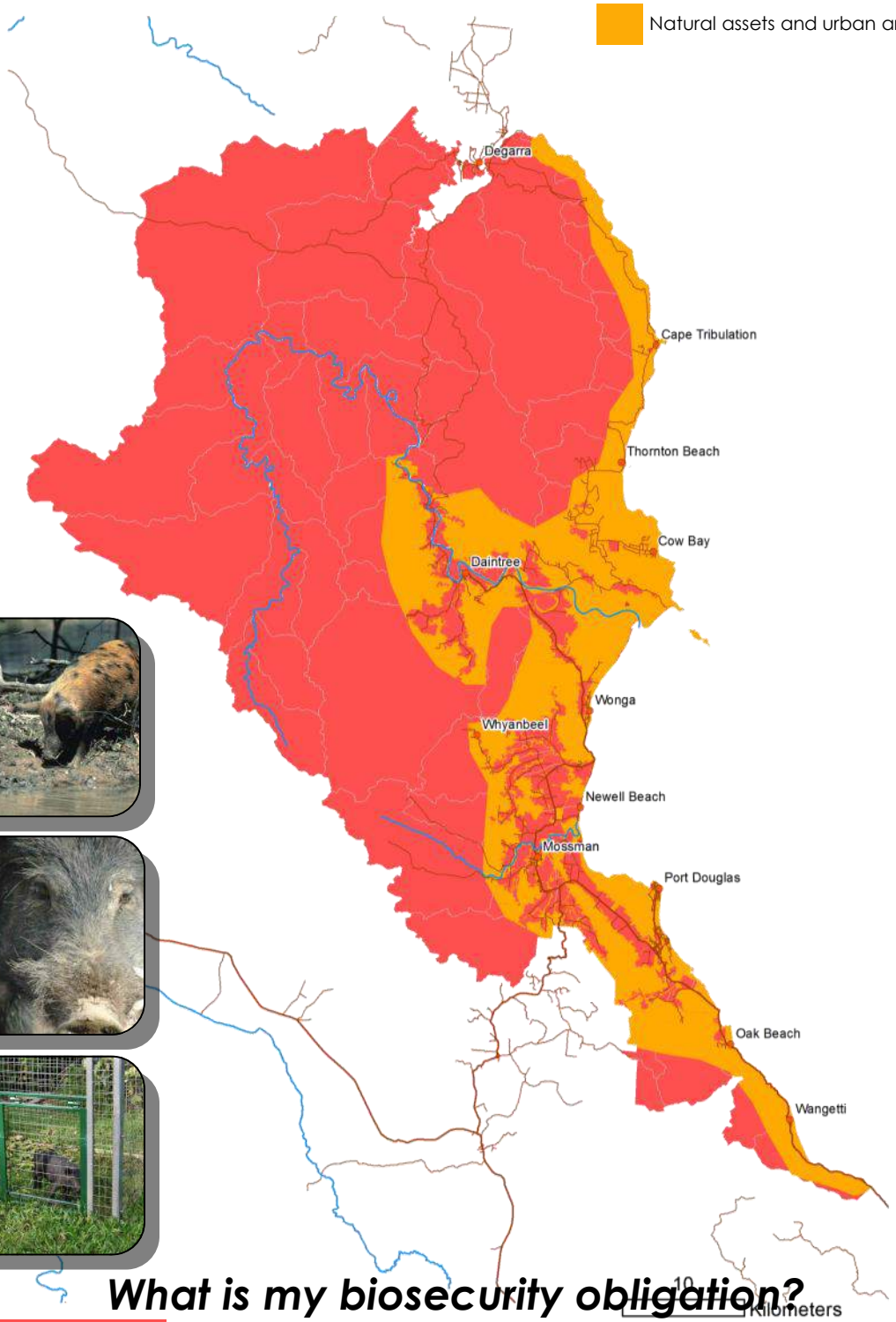
2

3

4

5

6



What is my biosecurity obligation?

Asset protection zone

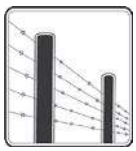
Pig proof fencing is by far the most effective measure of reducing the impacts of feral pigs on domestic gardens and small crops.

A range of control options from shooting, to trapping and baiting are used to control feral pigs when required. Douglas Shire Council operates a series of traps along the coastal lowlands and in the Daintree to reduce the number of feral pigs.

Landholders wishing to participate in the program should contact Douglas Shire Council on 07 4099 9444

For more information on management aims in each zone refer to *Using the pest plan templates*

Control



Miconia species (Miconia)

Priority

5/5	2.5/5	5.0/5	5.0/5	4.0/5	1.0/5	5.0/5	5.0/5	5.0/5

Details

Description: Small tree (up to 15 m) with large leaves up to 70 cm long. The underside of the leaves is a distinct, deep iridescent purple. Produces clusters of small white flowers followed by red/purple berries. *M. nervosa* has distinctive pointed leaves with prominent veins with a red/maroon hue.

Distribution: Current incursions occur in Whyanbeel Valley and Mossman.

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

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

Management requirements

Prevention

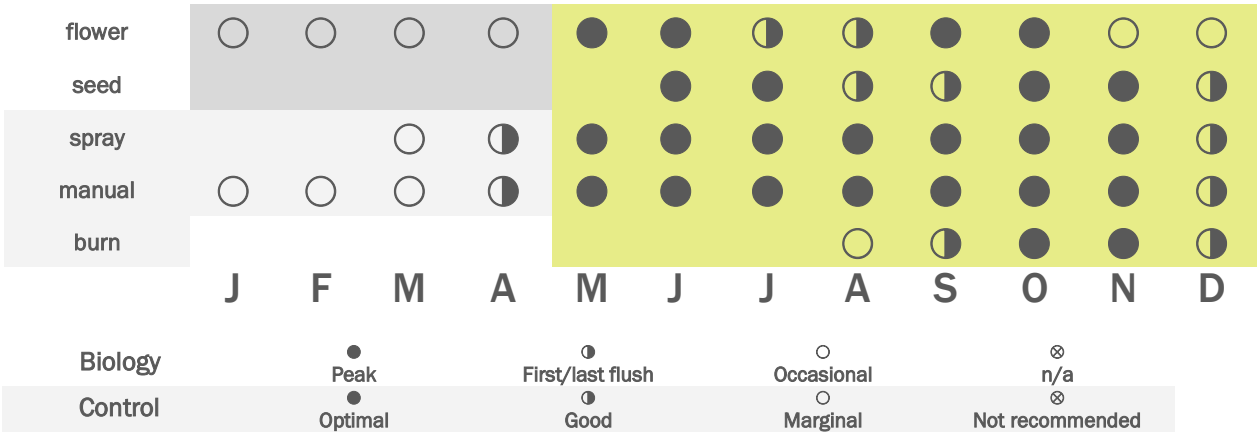
All Miconia in the Douglas Shire area have been introduced by gardeners and subsequently spread by birds. A community education and awareness program is an important part of the eradication program. Managing risk of spread to new areas through hygiene protocols for impacted nurseries and growers play an important role in prevention. Hygiene protocols are also in place for survey and control operations

Eradication

A National eradication program is underway on all known infestations. Bi-annual surveys are conducted to monitor all known infestations and to ensure no new outbreaks have gone undetected. Birds can disperse the small seeds out to many hundreds of metres .

Miconia calvescens is the most widely distributed of the 2 Miconia species present in the Douglas Shire which are eradication targets of the National 4 Tropical Weeds Eradication Program. Both species were introduced as garden specimens which have spread into neighbouring rainforest and agricultural landscape by birds.

Control Calendar



Miconia species (Miconia)

DOUGLAS SHIRE COUNCIL

Douglas Shire Biosecurity Management Plan 2017-21

woody

terrestrial

perennial

Category

2

3

4

5

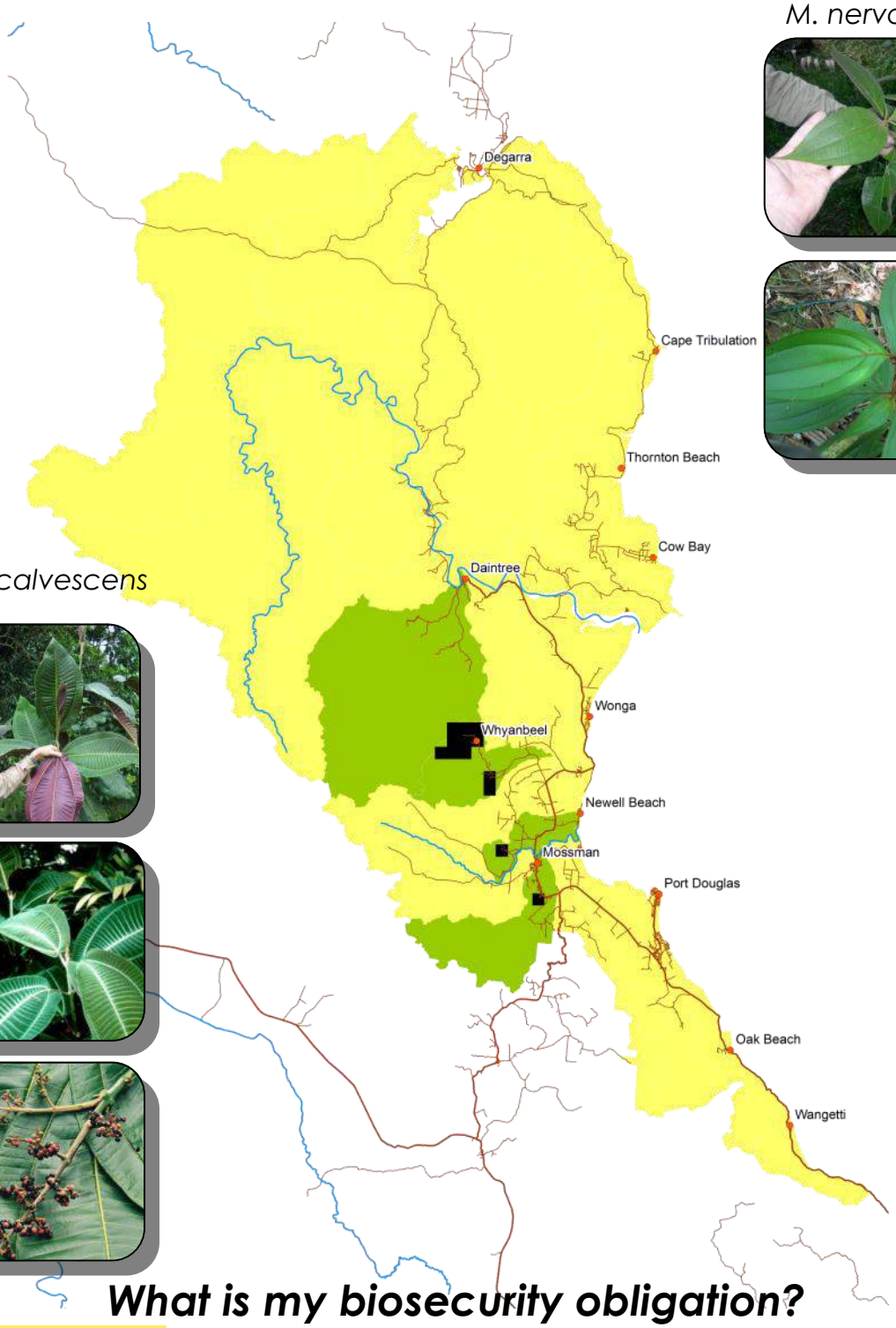
6

Control

Spread

M. nervosa

M. calvescens



What is my biosecurity obligation?

Prevention zone	Currently the target of the National cost-shared Four Tropical Weeds Eradication Program. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on **13 25 23**
Eradication zone	Currently the target of the National cost-shared Four Tropical Weeds Eradication Program. Landholders are required to report suspected infestations immediately to Biosecurity Queensland on **13 25 23**

For more information on management aims in each zone refer to *Using the pest plan templates*

Eichhornia crassipes (Water hyacinth)

Priority

2.5/5	1.5/5	5.0/5	4.0/5	5.0/5	1.0/5	4.0/5	4.0/5	5.0/5

Details

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

Distribution: Occurs only as isolated occurrences in drainage lines at Port Douglas and Wonga Beach

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

Key projects: Both known infestations are subject to eradication actions. Contact Douglas Shire Council to report any suspect plants on 1800 026 318

Management requirements

Prevention

Douglas Shire is conducting a community education and awareness program to prevent water hyacinth's spread to clean catchments. Water hyacinth is most likely to be introduced in water features and ponds or as an aquarium plant. Ensure water features and ornamental gardens do not contain water hyacinth. Douglas Shire is the northern most distribution of water hyacinth in the Wet Tropics and actions here will help protect wetlands and waterways to the north. Water hyacinth grows from seed and by division of mature plants and may be spread in contaminate soil from water features containing the weed in other areas.

Eradication

An eradication program is underway on the known infestations in the Port Douglas and Wonga Beach areas. Bi-annual surveys are conducted to monitor all known infestations and to ensure no new outbreaks have gone undetected.

Contact Douglas Shire Council to report any suspect plants or infestations on 1800 026 318

Control Calendar

	J	F	M	A	M	J	J	A	S	O	N	D
flower	●	●	●	◑	◑	○	○	○	○	◑	●	●
seed	●	●	●	◑	◑	○	○	○	○	○	◑	◑
spray	○	○	○	○	◑	◑	◑	◑	○	○	○	○
mechanical	○	○	○	○	◑	◑	○	⊗	⊗	⊗	⊗	⊗
biocontrol	○	○	○	◑	◑	◑	◑	◑	◑	○	○	○

Biology	● Peak	◑ First/last flush	○ Occasional	⊗ n/a
Control	● Optimal	◑ Good	○ Marginal	⊗ Not recommended

Eichhornia crassipes (Water hyacinth)

DOUGLAS SHIRE COUNCIL

floating

aquatic

perennial

Category

2

3

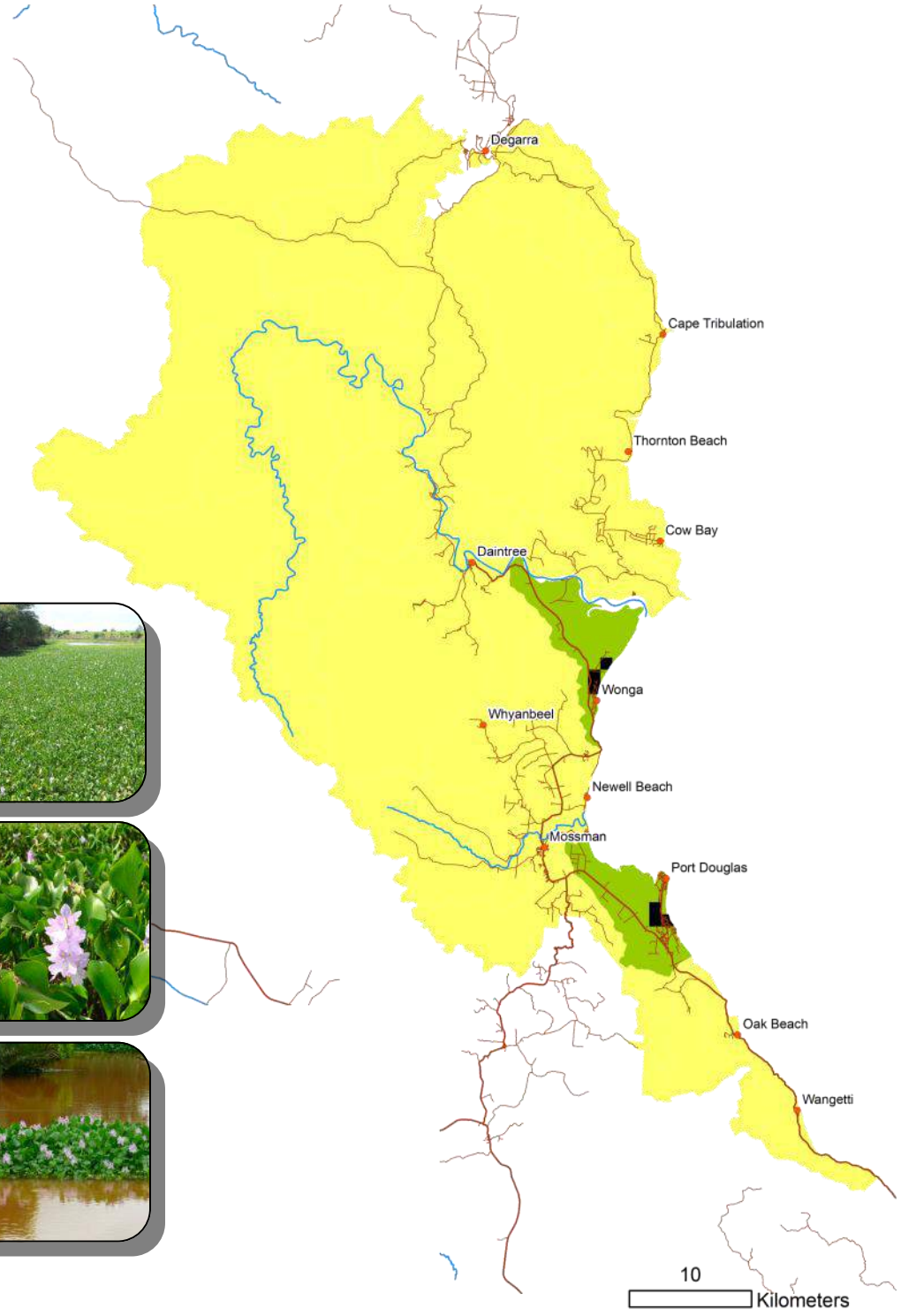
4

5

6

Control

Spread



What is my biosecurity obligation?

Prevention zone	Ensure wetland and pond plants are sourced from a reliable supplier from and are from a weed free area. Contact Douglas Shire Council to report any suspect plants on 07 40999444
Eradication zone	Contact Douglas Shire Council to report any suspect plants on 07 40999444

For more information on management aims in each zone refer to *Using the pest plan templates*

Douglas Shire Biosecurity Management Plan 2017-21

Chromolaena odorata (Siam weed)

Priority

0.0/5	1.5/5	5.0/5	4.0/5	4.0/5	4.0/5	3.0/5	5.0/5	5.0/5

Details

Description: A scrambling woody shrub to 3 metres (higher as a scrambling climber) with distinctive forked leaf venation and purple flush on new leaves. Clusters of white flowers in May-June and October.

Distribution: Localised and occasional in the Killaloe and Mossman area

Impacts: This species can form dense thickets and outcompete native species and pasture in both disturbed and undisturbed sites. Prefers richer soils in alluvial and riparian zones but will grow in rock and escarpment.

Key projects: The target of an National Eradication Program up until 2012, Siam weed is now in a transition to management. Siam weed remains a long term eradication target for the Douglas Shire area. Contact Douglas Shire Council to report any suspect plants on 07 40999444

Management requirements

Prevention

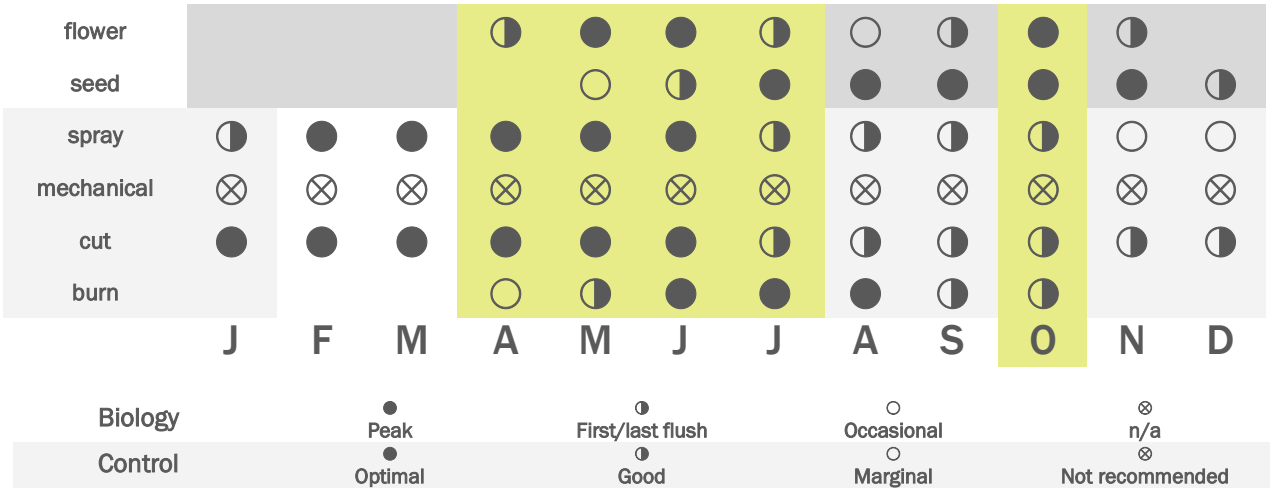
Siam weed is likely to arrive with contaminated stock, produce , vehicles or machinery from adjoining infested areas . Ensure weed hygiene measures are in place and materials/produce are sourced from a clean site.

Intensive control

Siam weed has a peak flowering period in May-June with another, less vigorous flowering in October. It is most visible at these times and this feature is used to detect plants prior to seeding. Siam weed is able to be spread by wind and water as well as by machinery and An ongoing intensive control program is preparing all known infestations across the Douglas Shire area for eradication.

Siam seed is confirmed to remain viable in the soil for at least 7 years. Maintaining records of historical infestations and restricting disturbance and movement of soil is essential to prevent spread.

Control Calendar



Chromolaena odorata (Siam weed)

DOUGLAS SHIRE COUNCIL

woody

terrestrial

perennial

Category

2

3

4

5

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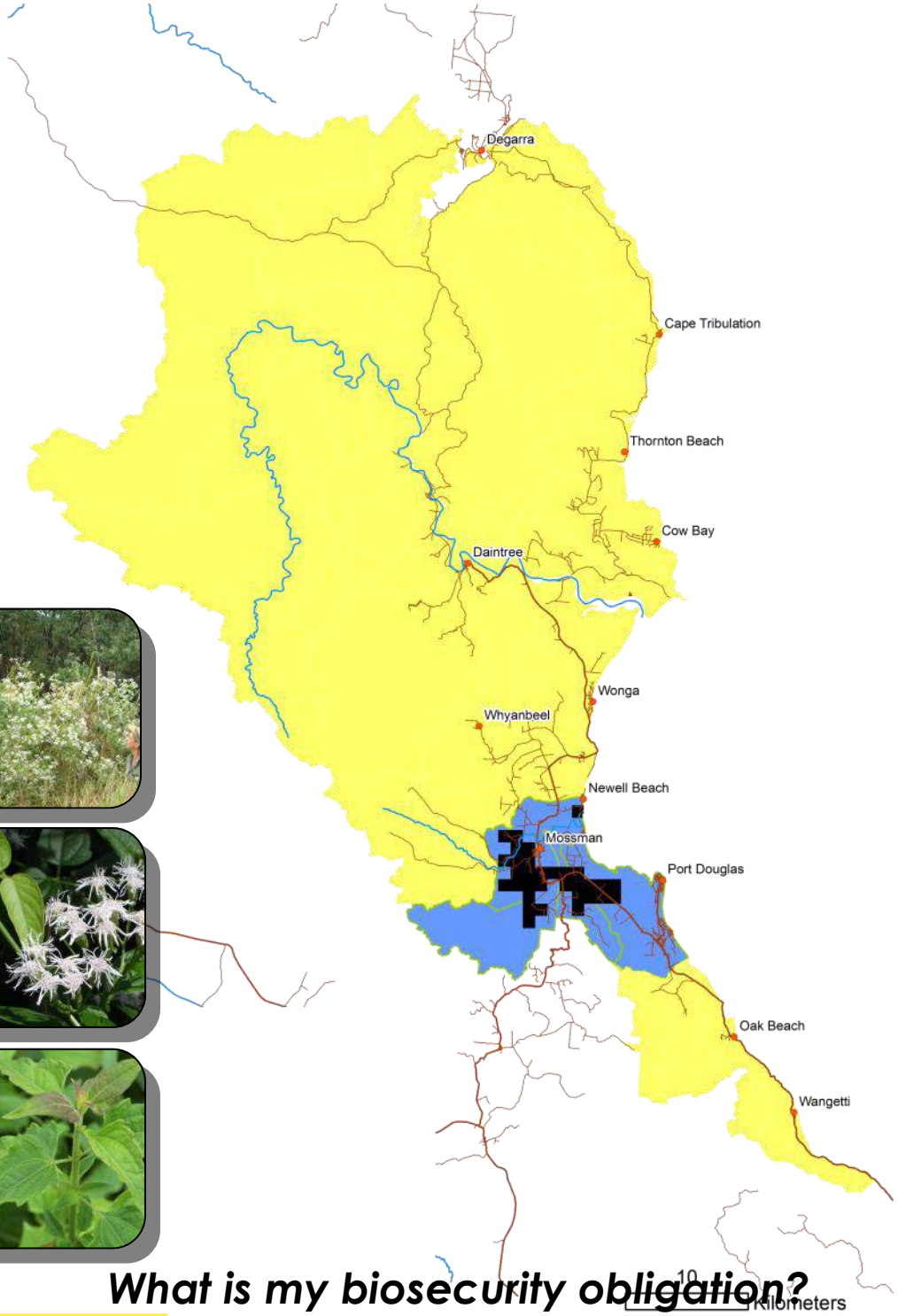


What is my biosecurity obligation?

Prevention zone	Ensure agricultural and raw materials are sourced from a reliable supplier from and are from a weed free area. Contact Douglas Shire Council to report any suspect plants on 07 40999444
Intensive control zone	Ensure agricultural and raw materials are sourced from a reliable supplier from and are from a weed free area. Do no disturb or remove soil and plant material from know infestation location, even if no plants are visible Contact Douglas Shire Council to report any suspect plants on 07 40999444

For more information on management aims in each zone refer to *Using the pest plan templates*

Control

Spread

Cecropia spp. (Mexican bean tree)

Priority

0.0/5	2.5/5	5.0/5	4.0/5	4.0/5	1.0/5	3.0/5	5.0/5	5.0/5

Details

Description: Rapidly growing tree to 20m. Hollow stems, large deeply lobed leaves with flocked white undersides. Distinctive leaf scars on trunk. Female plat produces long finger-like spikes.

Distribution: Restricted to isolated outbreaks in the Whyanbeel Valley where it was introduced as a garden specimen

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

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

Management requirements

Prevention

A community education and awareness program is an important part of the eradication program. Managing risk of spread to new areas through hygiene protocols for impacted nurseries and growers play an important role in prevention. Hygiene protocols are also in place for survey and control operations.

Cecropia was most likely to be introduced as a garden specimen or experimental food plant over the past 2 decades. Keep an eye out in areas where plant collections or gardens have been or are situated as well as rainforest areas and disturbed sites across the Whyanbeel Valley

Eradication

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

Control Calendar

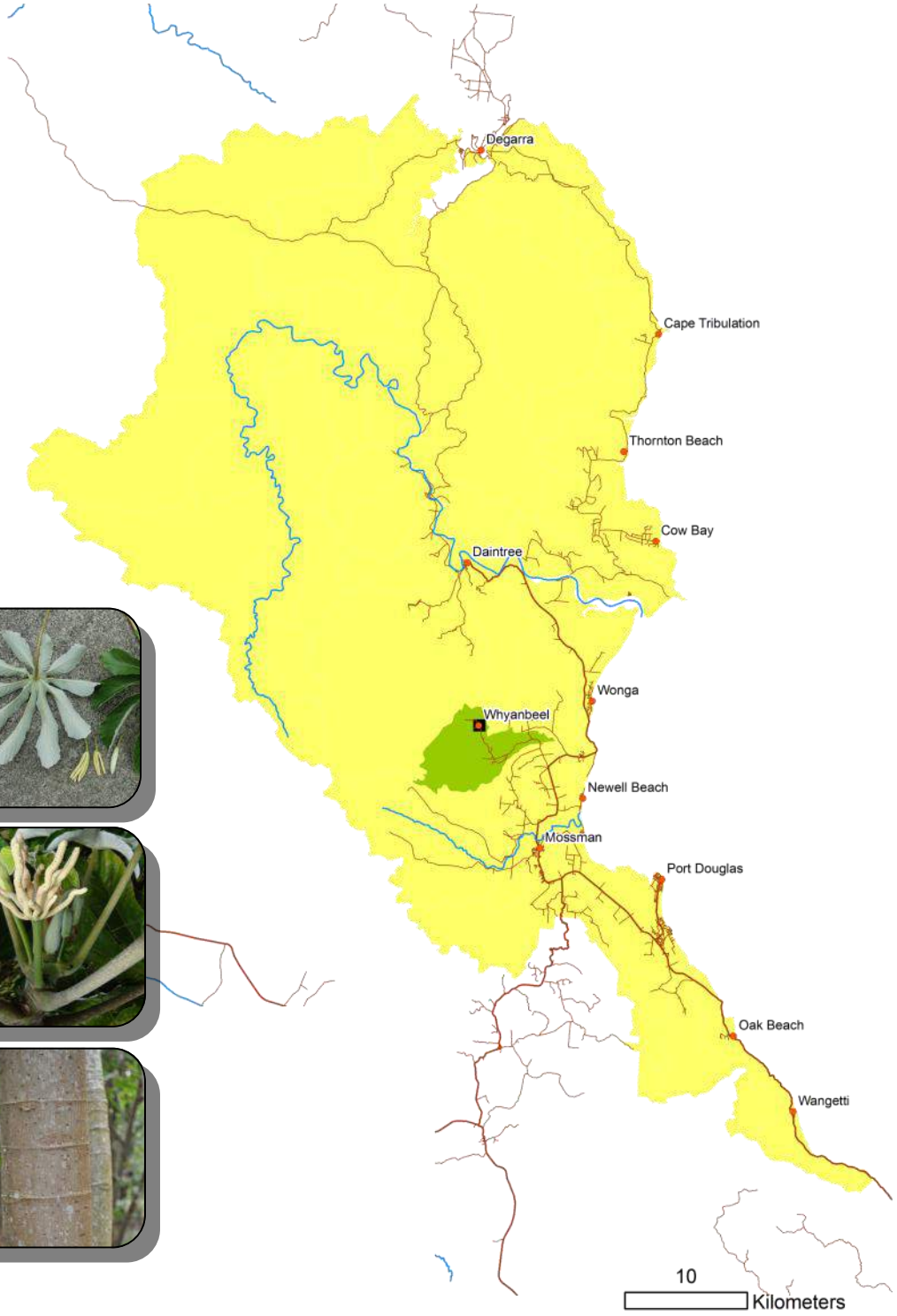
	J	F	M	A	M	J	J	A	S	O	N	D
flower	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑
seed	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑	◑
Cut stump	○	○	○	○	○	○	○	○	○	○	○	○
manual	○	○	○	○	○	○	○	○	○	○	○	○

Biology	● Peak	◑ First/last flush	○ Occasional	⊗ n/a
Control	● Optimal	◑ Good	○ Marginal	⊗ Not recommended

Cecropia spp. (Mexican bean tree)

DOUGLAS SHIRE COUNCIL

Douglas Shire Biosecurity Management Plan 2017-21



woody

terrestrial

perennial

Category

2

3

4

5

6

Control

Spread

What is my biosecurity obligation?

Prevention zone	All known locations are the target of a regional eradication program led by Biosecurity Queensland. All suspected sightings of this plant must be reported to Biosecurity Queensland on 13 25 23 within 24 hours of sighting.
Eradication zone	It must not be given away, sold or released into the environment without a permit

For more information on management aims in each zone refer to *Using the pest plan templates*

Hiptage benghalensis (Hiptage)

Priority

0.0/5	0.0/5	5.0/5	5.0/5	5.0/5	2.0/5	5.0/5	4.0/5	3.0/5

Details

Description: Perennial plant that is more shrub-like in open areas, but more vine-like in rainforest, where it can grow to more than 15m tall. Fruit is helicopter like ('samara') which has 3 papery wings 2-5cm long that float on wind and contain 1-3 seeds.

Distribution: Only known to occur in the Mossman River Catchment within Far North Queensland . Core infestations occur on Butches Hill. Outlier infestation occur in the Mossman Gorge and South Mossman River areas.

Impacts: Forms dense vine towers which smothers native vegetation along banks of creeks and rivers in coastal areas. Invades rainforests and seasonally dry, lowland closed forests. Hiptage poses a significant threat to Mossman Gorge and the Wet Tropics Works Heritage Area.

Key projects: Target of a coordinated eradication program across all know sites. Any detections of this plant should be reported to Douglas Shire Council on1800 026 318

Management requirements

Delimitation

Further and ongoing aerial survey is required to ensure that all known sites are under management.

Prevention

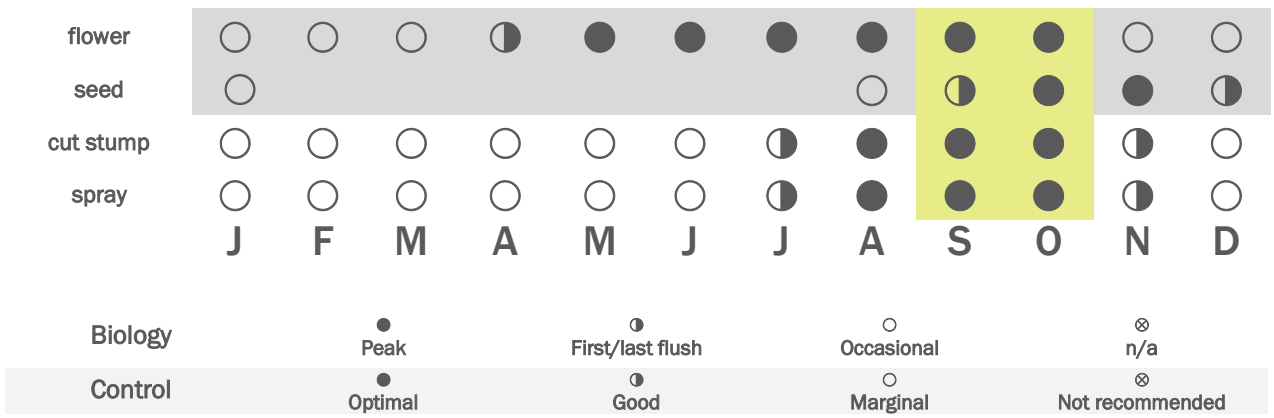
Hiptage is the subject of a community education and awareness program . Weed hygiene protocols are in place for survey and control operations. Hiptage was most likely introduced as an ornamental garden plant. Any suspected planting or sale should be reported to Douglas Shire Council on 1800 026 318

Intensive control

An ongoing intensive program is underway on all known infestations. The project is preparing all known infestations for an eradication goal in the future . Bi-annual surveys conducted to monitor all known infestations and to ensure no new outbreaks have gone undetected.

Aerial survey is conducted annually to detect flowering plants in the rainforest canopy. Each site is then visited on foot to treat and survey.

Control Calendar



Hiptage benghalensis (Hiptage)

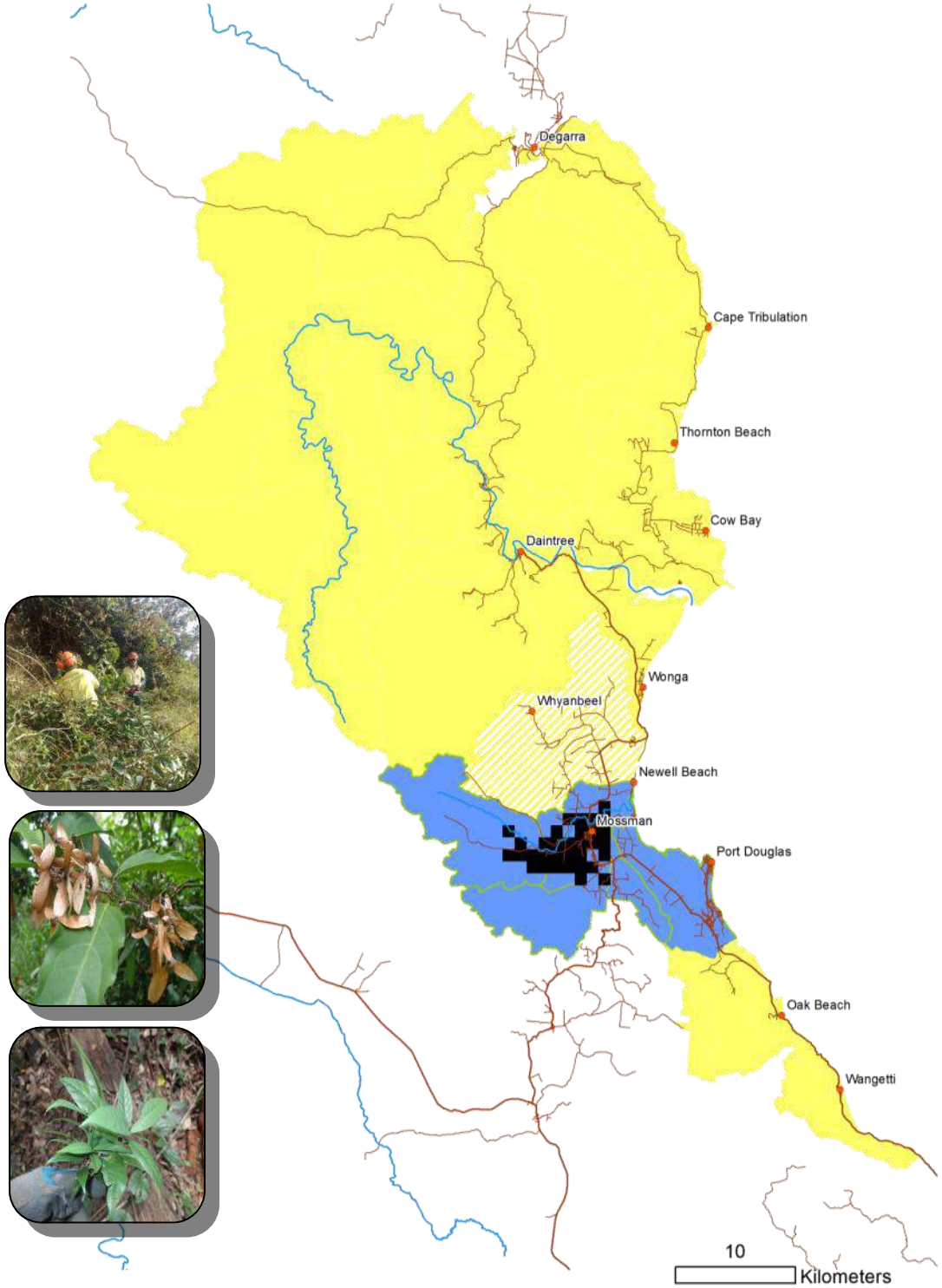
DOUGLAS SHIRE COUNCIL

vine

terrestrial

perennial

Douglas Shire Biosecurity Management Plan 2017-21



What is my biosecurity obligation?

Delimitation zone

Prevention zone

Hiptage is most likely to have been introduced as a garden plant. Any suspected plantings, sales or other detections of this plant should be reported to Douglas Shire Council on1800 026 318

Intensive control

Report any suspect plants to Douglas Shire Council on 1800 026 318. Assist the control program by maintaining site access for the operations team to survey and control in forest and creek lines.

For more information on management aims in each zone refer to *Using the pest plan templates*

Category

2

3

4

5

6

Control

Spread

Annona glabra (Pond Apple)

Priority

2.5/5	1.5/5	5.0/5	4.0/5	5.0/5	3.0/5	1.0/5	3.0/5	3.0/5

Details

Description: Tall semi-deciduous shrub or tree reaching around 15m but typically 3-6 m. Pond apple is most likely to occur in wetlands and along stream margins but it may occur along beaches as well. Leaves are lighter below than above and have a green apple scent when crushed. The Large fruit is similar to a custard apple and are filled with floating seeds similar in size and shape to a pumpkin seed.

Distribution: Core infestations occur in the Daintree River and Baileys Creek Areas. Outlier infestations occur in the Mossman River, Port Douglas and Cowie Beach. Seeds can float on river and ocean currents

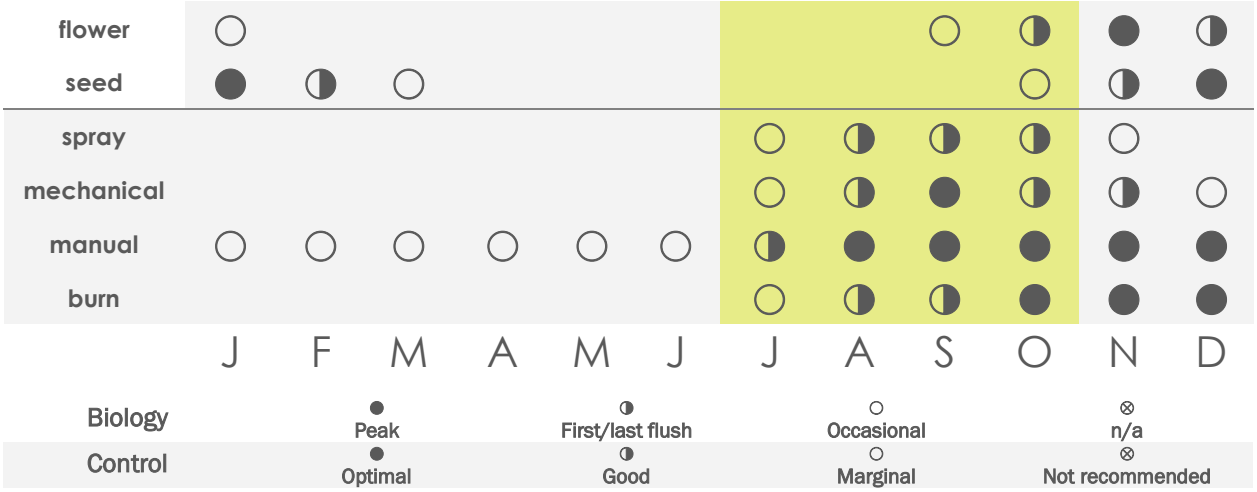
Impacts: Pond apple is a highly invasive tree/shrub that can colonise and take over a wide range of habitats. It forms dense thickets that exclude most native ground and shrub layer plants and prevents regeneration of trees.

Key projects: Long term projects are continuing in the Daintree River catchment to reduce impacts and remove infestations from top of catchment down

Management requirements

Delimitation	Extended survey is required for areas of suitable habitat between Cape Tribulation and Bloomfield River
Prevention	Pond apple is most likely to grow along creeks and in wetlands but it may also be found in old orchards where it was used as graft stock in the past or appear along beaches and beach swales where it is arrives as floating seeds. Keep an eye out for pond apple in swamps, mangroves, estuaries or islands and report any suspect plants to council
Eradication	The northern infestation in Cowie Bay is currently under monitoring to eradication. Pond apple can be confused with several mangrove species so contact the council team to assist identify and plan your management response
Intensive control	The upper Daintree River and Mossman River are the target of top down management to remove upstream sources above tidal areas. Occasional plants occur in the Port Douglas and Four Mile Beach and are removed when detected.
Asset protection	Core infestations occur in the tidal areas of the lower Daintree River and the Melaleuca swamps of Baileys Creek in Cow Bay. These infestation are the source of seeds which wash up and form small infestations from Wonga Beach to Noah Head

Control Calendar



Annona glabra (Pond Apple)

DOUGLAS SHIRE COUNCIL

woody

aquatic

perennial

Category

2

3

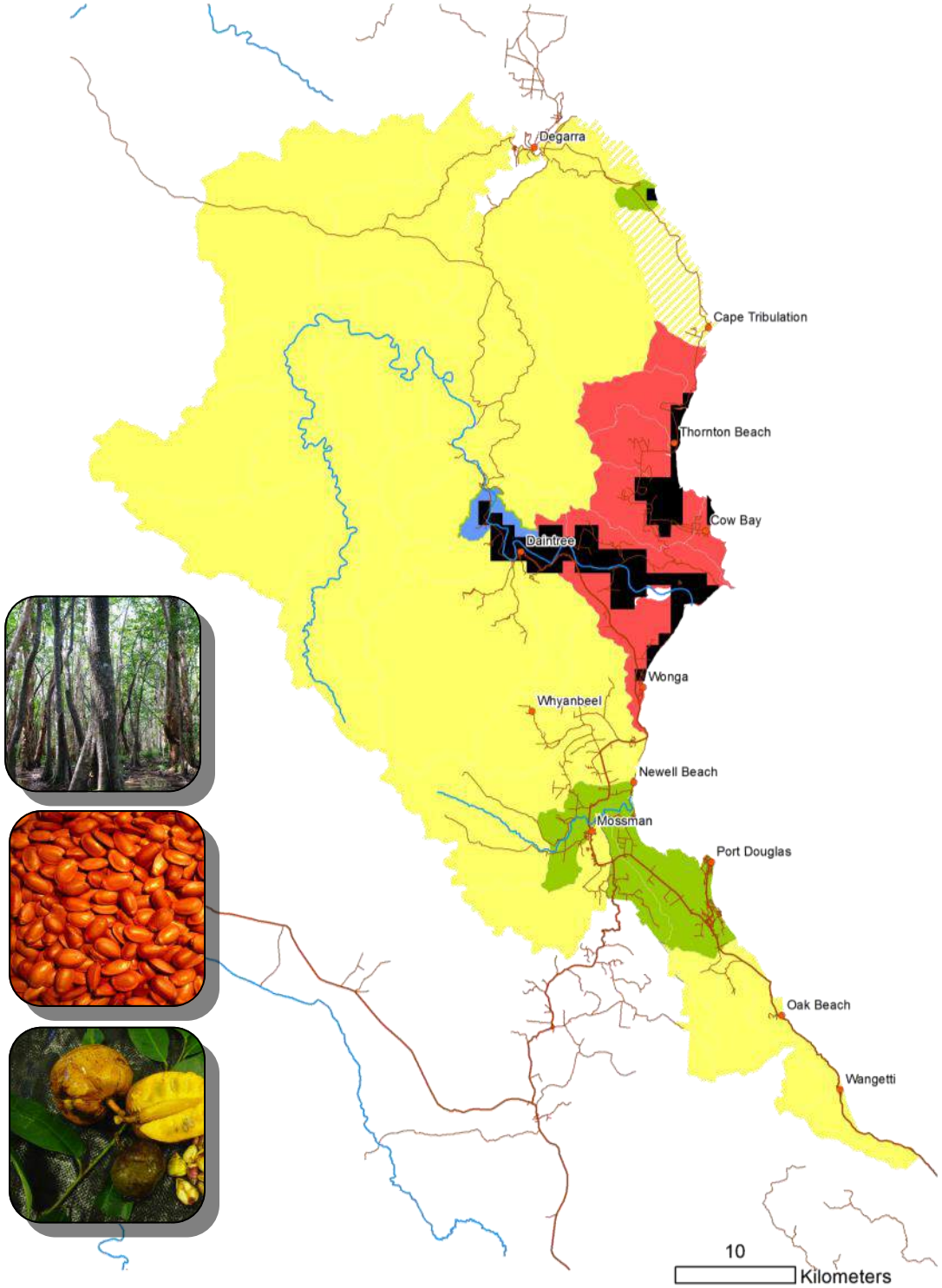
4

5

6

Control

Spread



What is my biosecurity obligation?

Delimitation zone	
Prevention zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444
Eradication zone	
Intensive control zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 Control plants in creeks and drains. Assist management programs by assisting with access to waster ways and wetlands. Report new infestations
Asset protection zone	

For more information on management aims in each zone refer to *Using the pest plan templates*

Douglas Shire Biosecurity Management Plan 2017-21

Pistia stratiotes (Water lettuce)

Priority

0.0/5 | 1.5/5 | 5.0/5 | 4.0/5 | 5.0/5 | 1.0/5 | 4.0/5 | 3.0/5 | 5.0/5

Details

Description: A free floating aquatic weed which resembles an open head of lettuce. Leaves are spongy, light green and water repellent. Small green flowers. Reproduces from seeds or division.

Distribution: Isolated to water features and artificial water ways particularly in Wonga Beach area. Prefers slow moving water bodies with high nutrients.

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

Key projects: Systematic top down management in infested catchments will be required to reduce the impacts of water lettuce

Management requirements

Prevention

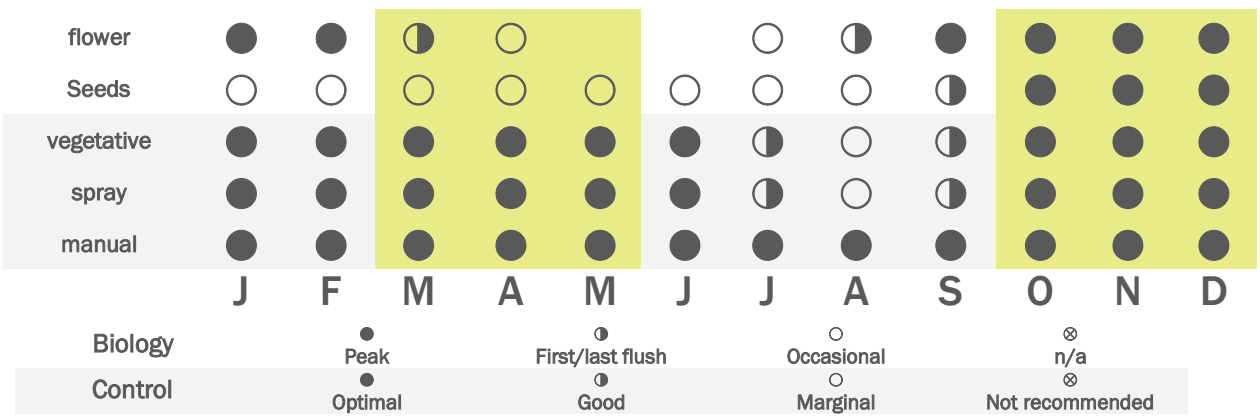
Water lettuce is most likely to be introduced via aquariums or water features. The plant could be potentially be introduced as a contaminant in water plants sourced from the greater Cairns area. Ensure that sources of water plants like water lily are weed free and do not contain water lettuce or other water weeds. Do not empty aquariums into man made or natural waterways.

Intensive control

Water lettuce reproduces by seed and by division from stolons (runners). A top of catchment down approach is being used to systematically remove water lettuce from the water features and artificial waterways where it occurs in Douglas Shire.

Water lettuce can spread on flood water so operations will focus on areas at risk following major weather events

Control Calendar



Pistia stratiotes (Water lettuce)

DOUGLAS SHIRE COUNCIL

floating

aquatic

perennial

Category

2

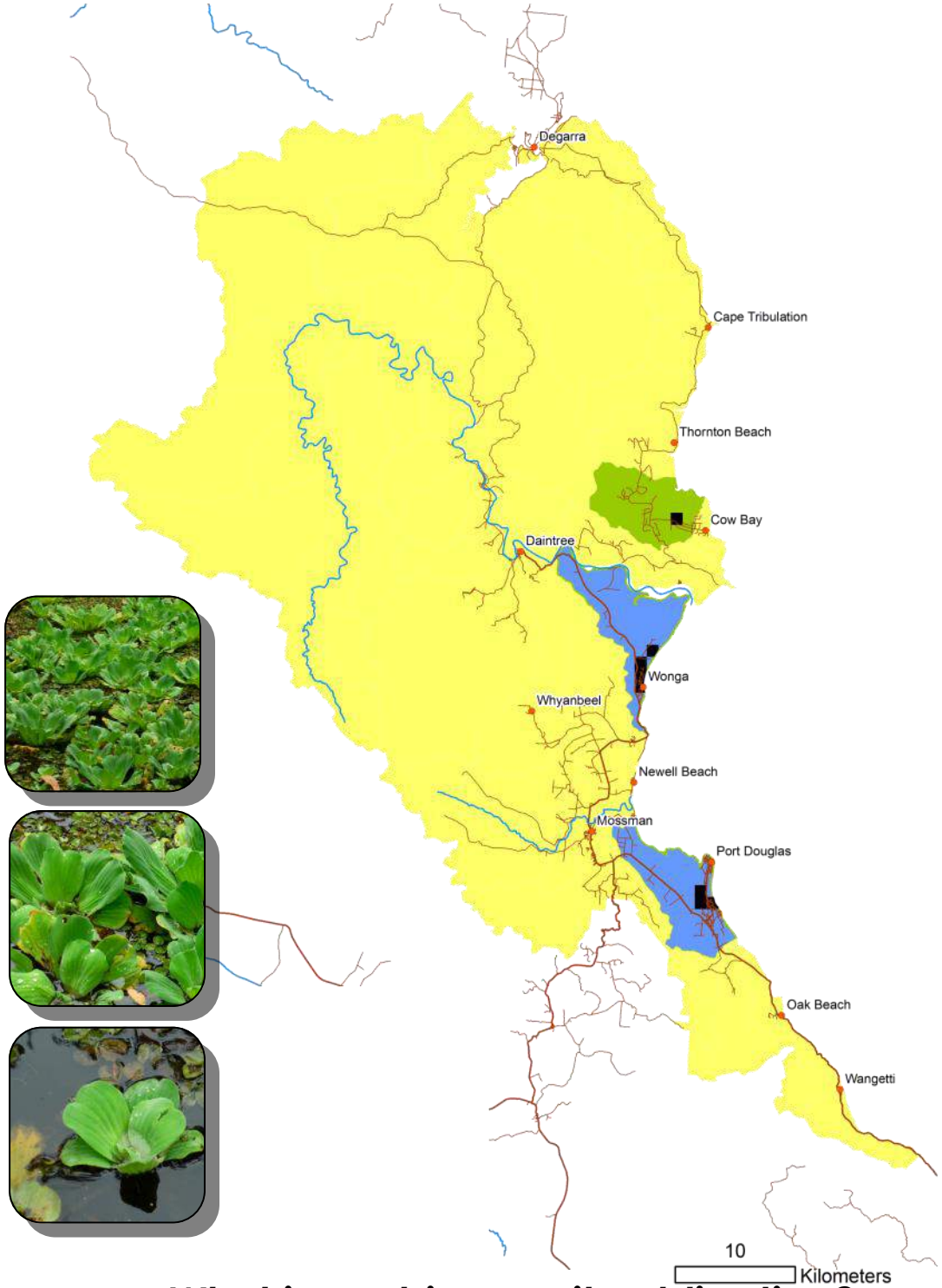
3

4

5

6

Douglas Shire Biosecurity Management Plan 2017-21



What is my biosecurity obligation?

Prevention zone	Water lettuce is a restricted plant under the Biosecurity Act 2014. It must not be distributed, given away or sold. Ensure sources of aquatic plants for aquariums and water features are weed free. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 444
Intensive control	Ensure water features and ornamental gardens do not contain water lettuce. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 444.

Control

Spread

For more information on management aims in each zone refer to *Using the pest plan templates*

T. laurifolia and grandiflora (Thunbergia vines)

Priority

0.0/5 | 1.5/5 | 5.0/5 | 4.0/5 | 4.0/5 | 1.0/5 | 4.0/5 | 4.0/5 | 5.0/5

Details

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

Distribution: Several isolated outbreaks within the Douglas Shire

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

Key projects: All known infestations are under active programs toward eradication. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 444

Management requirements

Prevention

The main method of spread for Thunbergia vine is through the sharing plants between gardeners. It is an offence under the Biosecurity Act to move, share, give away or sell this plant.

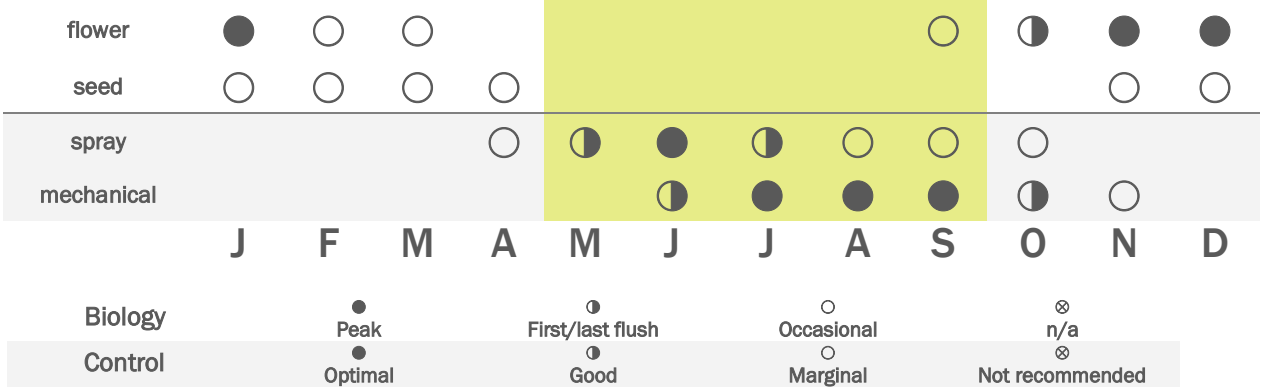
Because it often grows on the banks of creeks and rivers Thunbergia may be spread during floods and cyclones, or during clean up work afterwards. You can reduce the risk of spread by reporting any suspect vines with purple or mauve flowers to council and by making sure machinery used is clean before arriving to do any work.

Eradication

A council led eradication program is underway on all known infestations of Thunbergia laurifolia and grandiflora. Landholders can assist the program by maintaining easy access to treatment areas or by assisting council staff during control activities.

If your property has an active infestation make sure your green waste does not contain live plant material and is not disposed of in areas where the plant might establish like creeks and bushland.

Control Calendar



T. laurifolia and grandiflora (Thunbergia

DOUGLAS SHIRE COUNCIL

vine

terrestrial

perennial

Category

2

3

4

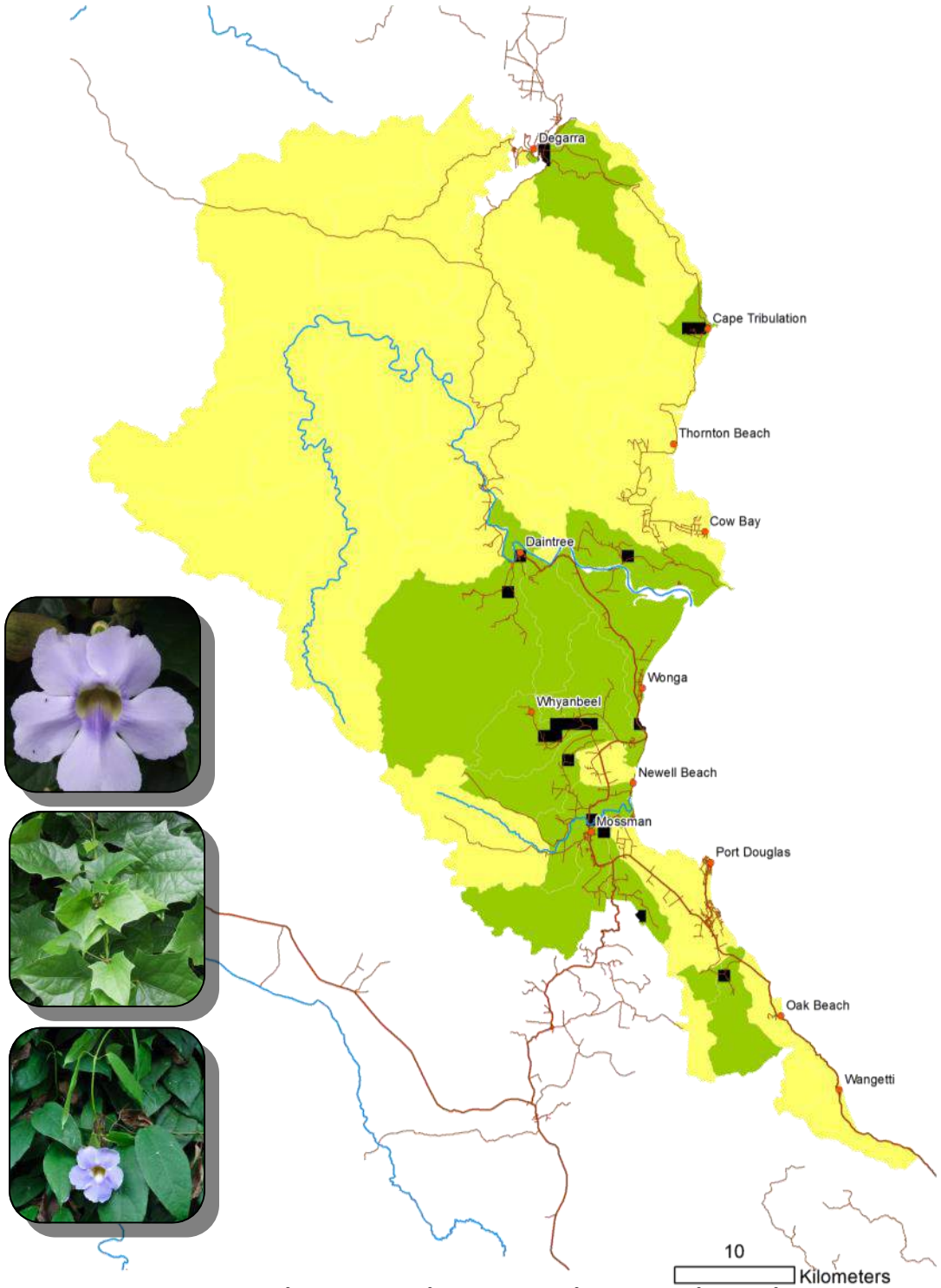
5

6

Control

Spread

Douglas Shire Biosecurity Management Plan 2017-21



What is my biosecurity obligation?

Prevention zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 Ensure any machinery or vehicles moving from the eradication zone are free from plant material and soil
Eradication zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444. Seek advice prior to works in vicinity of known locations. Do not move or accept plant material or soil unless you are sure it is from a clean source

For more information on management aims in each zone refer to *Using the pest plan templates*

Parthenium hysterophorus (Parthenium)

Priority

2.5/5	1.5/5	5.0/5	3.0/5	2.0/5	3.0/5	1.0/5	5.0/5	5.0/5

Details

Description: Parthenium weed is an annual herb with a deep tap root and an erect stem that becomes woody with age. As it matures, the plant develops many branches in its top half and may eventually reach a height of two metres.

Distribution: Isolated infestation in Forest Creek

Impacts: Parthenium is a weed of crops and grasslands causing loss of crop and pasture production. Parthenium weed also causes severe allergic reactions including hay fever and dermatitis in susceptible people. Parthenium is often spread as a contaminant in poultry and stock feed.

Key projects: Only known site in Douglas Shire is under an ongoing monitoring program and progressing to eradication. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 444

Management requirements

Prevention

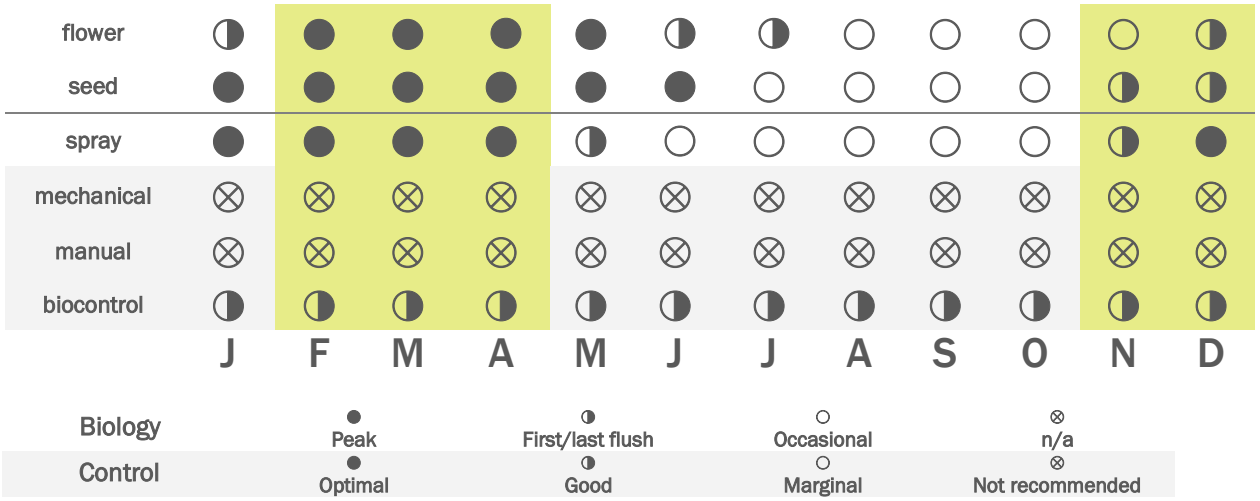
Implement hygiene requirements for roadside management operators and wider community where this pest is present. Public awareness targeted to areas where Parthenium weed is absent. Ensure stock feeds is from a clean and secure source.

Eradication

Parthenium weed is often spread as a contaminant in stock and poultry feed. Keep a close watch on areas where feed has been spread. Ensure that the supplier you source from can confirm the product is free from weed seed and not from a known infested area. imported vehicles and machinery are free from weed seed and soil. Spell any stock in a holding paddock for at least 7 days.

Implement hygiene requirements for roadside management operators and wider community where this pest is present. Public awareness targeted to areas where Parthenium weed is absent.

Control Calendar



Parthenium hysterophorus (Parthenium)

DOUGLAS SHIRE COUNCIL

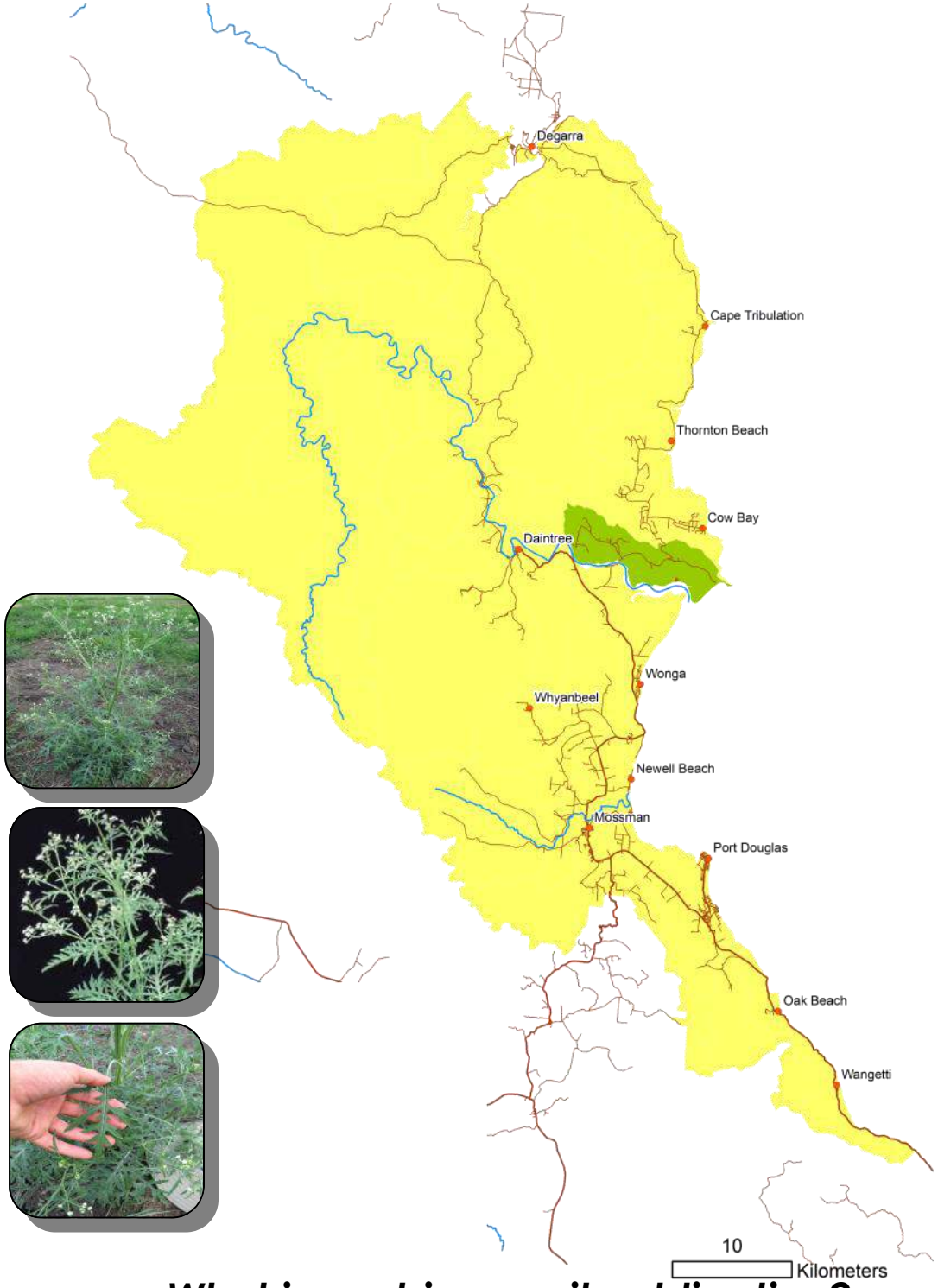
herb
terrestrial
annual

Category

2
3
4
5
6

Control

Spread



What is my biosecurity obligation?

Prevention zone	Ensure any machinery or vehicles moving from the infested areas are free from plant material and soil. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 9444
Eradication zone	Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations. Maintain weed free areas. Assist in annual survey operations. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 444

For more information on management aims in each zone, refer to *Using the pest plan templates*

Salvinia molesta (Salvinia)

Priority

2.5/5	1.5/5	5.0/5	4.0/5	5.0/5	1.0/5	4.0/5	3.0/5	2.0/5

Details

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

Distribution: Widespread and occasional in disturbed creek systems in Port Douglas and Wonga Beach

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

Key projects: Long term management projects and taking place in Wonga Beach and Ferndale Wetlands reserve.

Management requirements

Prevention

Salvinia is most likely to be introduced as a contaminant of wetland plants sourced from infested locations or aquariums. It may also spread on floodwaters from known locations.

The ongoing protection of the clean catchments identified within this plan will assist reduce the spread of Salvinia. Ensure that Salvinia is not introduced to ornamental ponds or water features. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 9444

Intensive control

There are ongoing intensive control projects in Wonga Beach and Port Douglas. Infestations are currently be controlled with herbicide follow-up surveys to ensure all plant fragments have been treated.

Control Calendar

	J	F	M	A	M	J	J	A	S	O	N	D
flower	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗	⊗
vegetative	●	●	●	●	●	●	◑	○	◑	●	●	●
spray	●	●	●	●	●	●	◑	○	◑	●	●	●
manual	●	◑	○						○	◑	●	●
biocontrol	●	●	●	●	●	●	◑	○	◑	●	●	●

Biology	● Peak	◑ First/last flush	○ Occasional	⊗ n/a
Control	● Optimal	◑ Good	○ Marginal	⊗ Not recommended

Salvinia molesta (Salvinia)

DOUGLAS SHIRE COUNCIL

Douglas Shire Biosecurity Management Plan 2017-21

floating

aquatic

perennial

Category

2

3

4

5

6

What is my biosecurity obligation?

Prevention zone	Salvinia is a restricted plant under the Biosecurity Act 2014. It must not be distributed, given away or sold. Ensure sources of aquatic plants for aquariums and water features are weed free. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 9444
Intensive control zone	Do not remove any water plants from infested sites. Salvinia is a restricted plant under the Biosecurity Act 2014. It must not be distributed, given away or sold. Report any suspected outbreaks or detections to Douglas Shire on 07 4099 9444

For more information on management aims in each zone refer to *Using the pest plan templates*

Control

Spread

Pueraria lobata (Kudzu)

Priority

0.0/5	1.5/5	5.0/5	4.0/5	4.0/5	2.0/5	3.0/5	3.0/5	5.0/5

Details

Description: A perennial scrambling vine with alternate leaves. The large leaves are a lobed shape and form in groups of three (like a dinosaur footprint). It produces purple pea like flowers and spreads rapidly when nodes come in contact with soil

Distribution: All currently known infestations occur in the Mossman River Catchment

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

Key projects:

Management requirements

Delimitation

A delimitation survey is in operation which aims to determine the full extent of Kudzu across Douglas Shire. Kudzu is likely to have been introduced as a medicinal or cultural plant. The Biosecurity Act requires that Kudzu is not distributed, given away or sold.

Report any suspected outbreaks or detections to Douglas Shire on 07 4099 9444 .

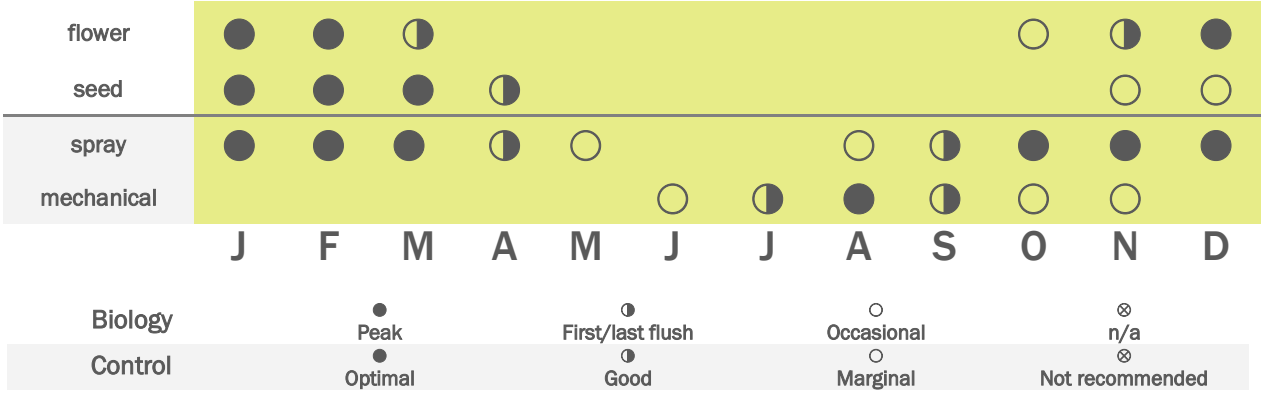
Prevention

Implement a community education and awareness program on this restricted pest species. Weed hygiene protocols in place for survey and control operations

Intensive control

All known sites are to be surveyed mapped and scheduled for treatment. Any works conducted in vicinity of known active sites should seek advice on hygiene measures required to recue the risk of spread to new locations.

Control Calendar



Pueraria lobata (Kudzu)

DOUGLAS SHIRE COUNCIL

Douglas Shire Biosecurity Management Plan 2017-21

vine

terrestrial

perennial

Category

2

3

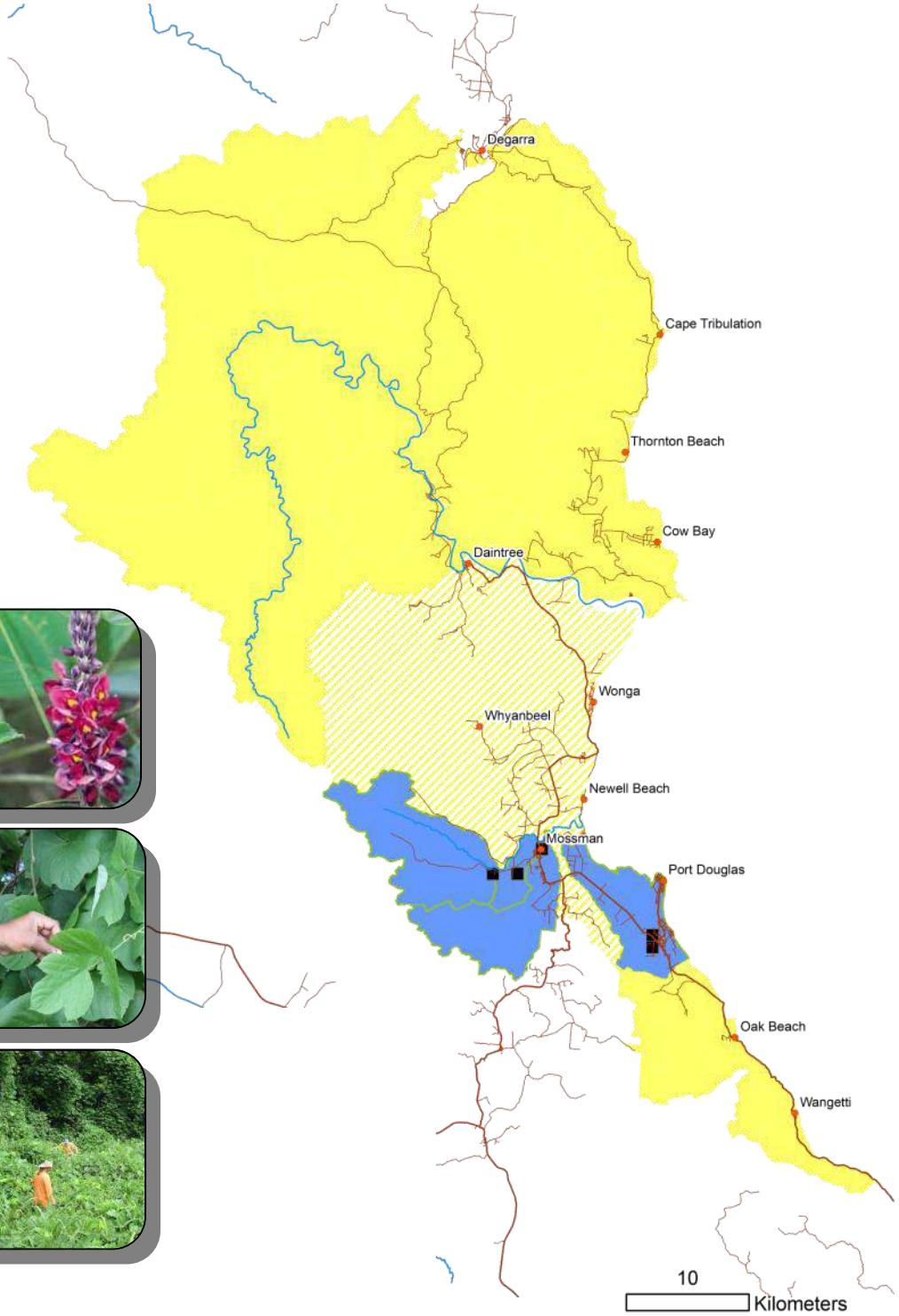
4

5

6

Control

Spread



What is my biosecurity obligation?

Delimitation zone

Prevention zone

Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 . Ensure any machinery or vehicles moving from infested areas are free from plant material and soil

Intensive control zone

Landholders with infestations should seek advice on best control methods to be implemented

For more information on management aims in each zone refer to *Using the pest plan templates*

Phytolacca rivinoides (Venezualean pokeweed)

Priority

0.0/5	0.0/5	5.0/5	4.0/5	4.0/5	1.0/5	3.0/5	3.0/5	5.0/5

Details

Description: Medium to large shrub with distinctive multi-stemmed and tangled habit. Conspicuous elongated flowers spikes with bright red/purple stems and small green fruit ripening to deep purple, almost black berries. Fruits and tiny white flowers are held on short stalks which radiate out from the flower spike. Leaves are oval shaped with a pointed tip and soft to touch.

Distribution: Current incursion occurs in the Whyanbeel Valley where it has been spread from cultivation in gardens by birds.

Impacts: Venezuelan pokeweed is currently restricted in it's distribution but has shown the ability to disperse and establish in both disturbed and un disturbed tropical forests and water ways. The prolific fruiting and dense growth habit of the plant means it smothers and outcompetes many native plants and occupies niches in rainforest which are usually open or occupied by dormant seedlings.

Key projects:

Management requirements

Delimitation

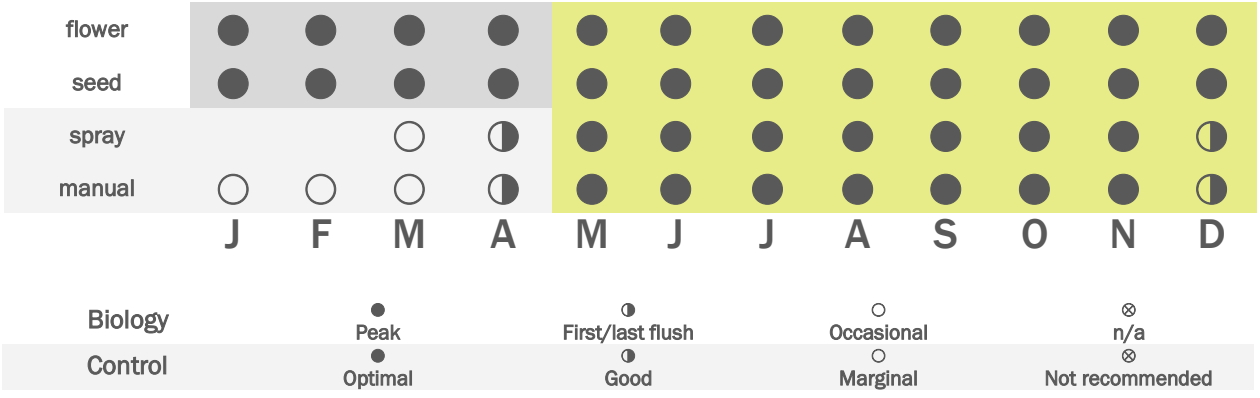
Venezuelan pokeweed occupies the part of the foot-print of the operations of the Four Tropical Weeds Eradication Program for *Miconia calvescens* and *nervosa*. Determining the current extent of spread by mapping plants during other survey operations will assist to establish the boundaries of the know infestation. Bi-annual surveys are conducted to monitor all known infestations and to ensure no new outbreaks have gone undetected.

Prevention

Venezuelan pokeweed was most likely introduced as an ornamental plant for the trial in the cut flower industry. It has since spread from cultivation in to occupy multiple sites on adjoining properties, forest and creek lines. It may be present in other area of the Douglas Shire or in nursery plants distributed from the properties in the Wyhanbeel Valley.

Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 .

Control Calendar



Phytolacca rivinoides (Venezualean

DOUGLAS SHIRE COUNCIL

herb

terrestrial

perennial

Category

2

3

4

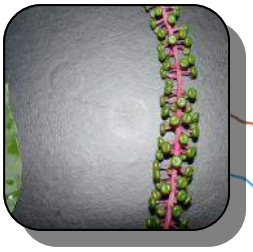
5

6

Control

Spread

Douglas Shire Biosecurity Management Plan 2017-21



What is my biosecurity obligation?

Delimitation zone

Prevention zone

Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 . Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.
Ensure nursery plants and supplies are from a weed free source.
Consider other less invasive for use in horticulture. Maintain access tracks entry points for survey operations.

For more information on management aims in each zone refer to *Using the pest plan templates*

Elephantopus mollis (Tobacco weed)

Priority

0.0/5	1.5/5	5.0/5	3.0/5	2.0/5	4.0/5	2.0/5	3.0/5	2.0/5

Details

Description: Tobacco weed is a slender fast growing herb up to 1.5m with rough/hairy oblong/oval leaves bunching at the base. Small white flowers surrounded by three bracts are held in clusters at the end of upright stems. Leaves and stems are resinous and can irritate the skin.

Distribution: Widespread in coastal districts particularly along roadsides, pastures and areas of disturbance.

Impacts: A threat to grazing, pastures and horticulture through competition. Tobacco weed can rapidly occupy disturbed and heavily grazed areas. Dense masses of seedlings smother grass. Prefers moist and fertile ground so can be highly competitive in production areas.

Key projects: Annual treatments along roadsides to reduce to spread

Management requirements

Prevention

Spread to new areas can be reduced by spelling stock in holding paddocks prior to movement. Populations on roadsides should be treated as a priority to prevent further spread.

Asset protection

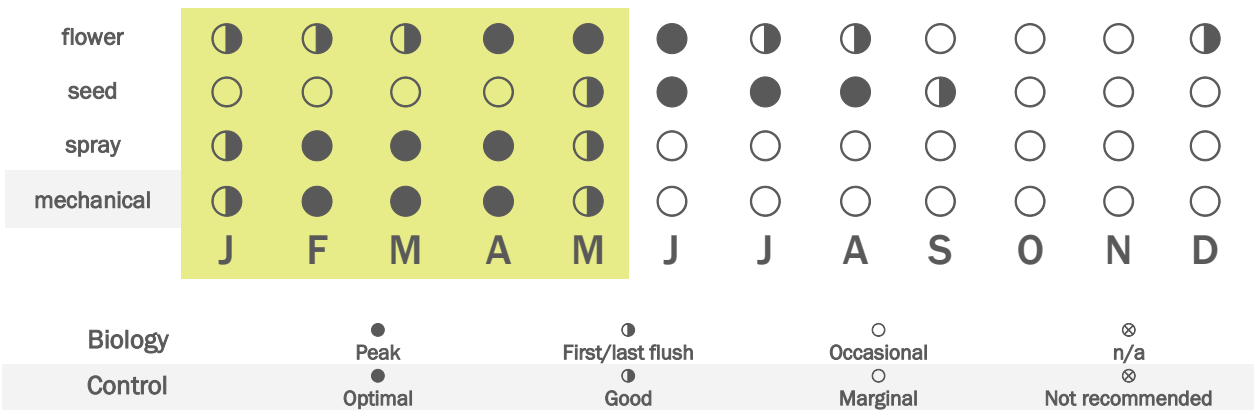
Tobacco weed prefers areas of disturbance and openings in the canopy in pastures and along roads. If left untreated it forms a dense ground cover which smothers grasses and native plants.

Careful management of pasture to maintain competition combined with periodic control prior to seeding can assist to reduce impacts on grazing enterprise.

Manage roadsides and pastures to prevent spread to adjoining paddocks and properties. Integrated control in grazing areas including pasture management, herbicide control and weed hygiene activities will assist keep pasture healthy. Spot spraying isolated outbreaks and prior to introducing stock or disturbing soil will reduce spread to new areas.

Tobacco weed may flower and seed any time of year but generally occurs in May after the wet season

Control Calendar



Elephantopus mollis (Tobacco weed)

DOUGLAS SHIRE COUNCIL

herb

terrestrial

perennial

Category

2

3

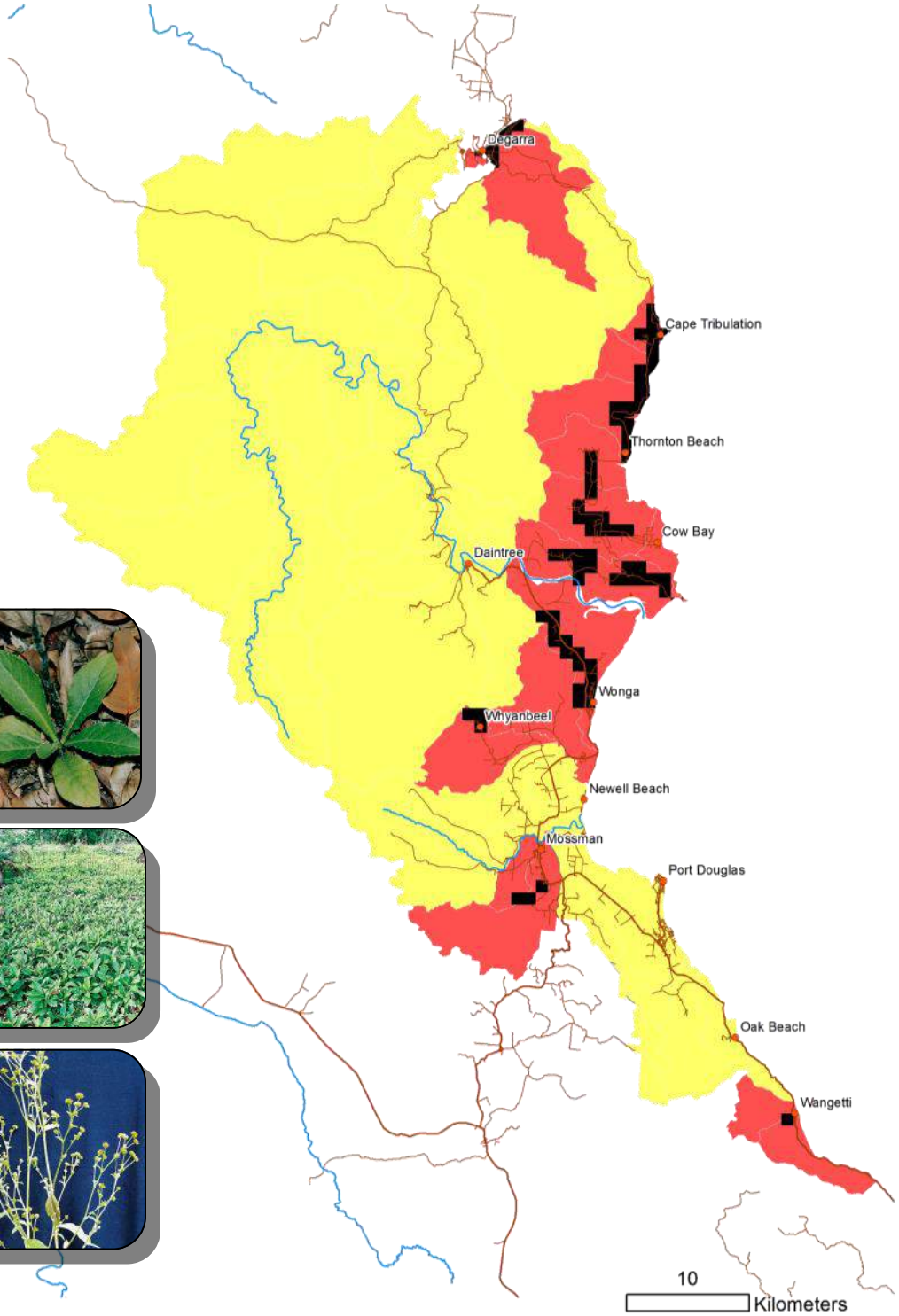
4

5

6

Control

Spread



What is my biosecurity obligation?

Prevention zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 . Ensure any machinery or vehicles moving from infested areas are free from plant material and soil
Asset protection	Treat infestation areas prior to seeding and maintain healthy pastures and stocking rates to provide competition. Manage roadsides and access areas. Ensure best practice weed hygiene measures are in place to reduce risk of spread to new locations.

For more information on management aims in each zone refer to *Using the pest plan templates*

Douglas Shire Biosecurity Management Plan 2017-21

Coccinia grandis (Ivy gourd)

Priority

0.0/5	0.0/5	5.0/5	3.0/5	3.0/5	1.0/5	5.0/5	4.0/5	5.0/5

Details

Description: Perennial and fast growing vine up to and over 10 metres tall. Heart to pentagon shaped leaves are alternate on slender stems which become thicker and succulent with age. White star shaped flowers in August/September. Produces red fruits to 6 cm long. Is a member of the passion fruit family and has simple tendrils and separate male and female flowers. Ivy gourd has a tuberous root system which can make control efforts difficult.

Distribution: Current incursions occur in isolated occurrences in the Mossman Catchment.

Impacts: Ivy gourd is a smothering vine which covers other vegetation forming a dense canopy. Ivy gourd was most likely introduced as culinary or medical plant and so is likely to have established in forest margins, creek lines and other areas adjoining towns and gardens. Seeds are distributed pigs and birds locally.

Key projects: All known infestations are surveyed and treated regularly

Management requirements

Prevention

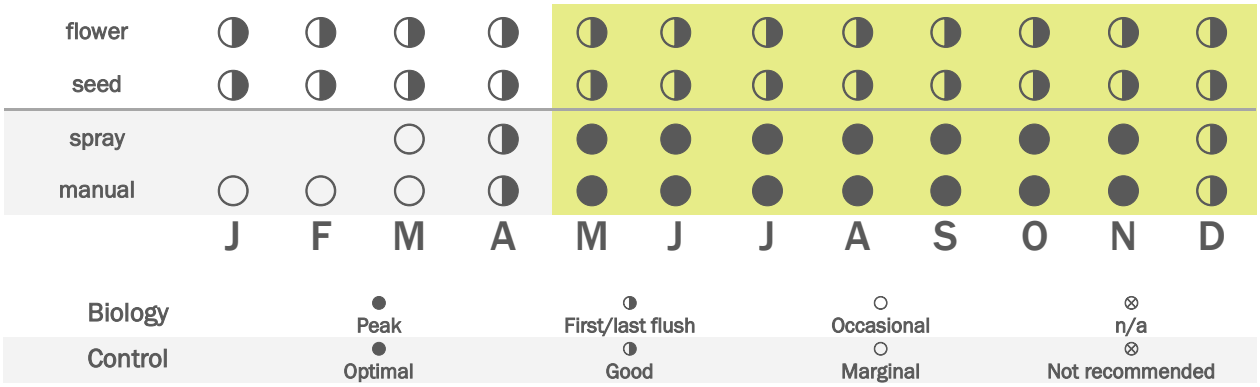
Ivy gourd is most likely to be introduced as a food plant as the growing tips and ripe fruits are used in cooking in many parts of Asia. It is also used for a range of medicinal uses are also The long distance dispersal is usually always human-assisted. In Far North Queensland it is likely to be passed between people and has also been detected at food markets.

There are many less invasive options for cooking greens or medicinal plants which can be used as an alternative. Report any suspected outbreaks or detections to Douglas Shire on 07 40999444

Eradication

An eradication program is underway on all known infestations in the Mossman catchment. Bi-annual surveys are conducted to monitor known locations and to treat any regrowth or germination of seed.

Control Calendar



Coccinia grandis (Ivy gourd)

DOUGLAS SHIRE COUNCIL

vine

terrestrial

perennial

Category

2

3

4

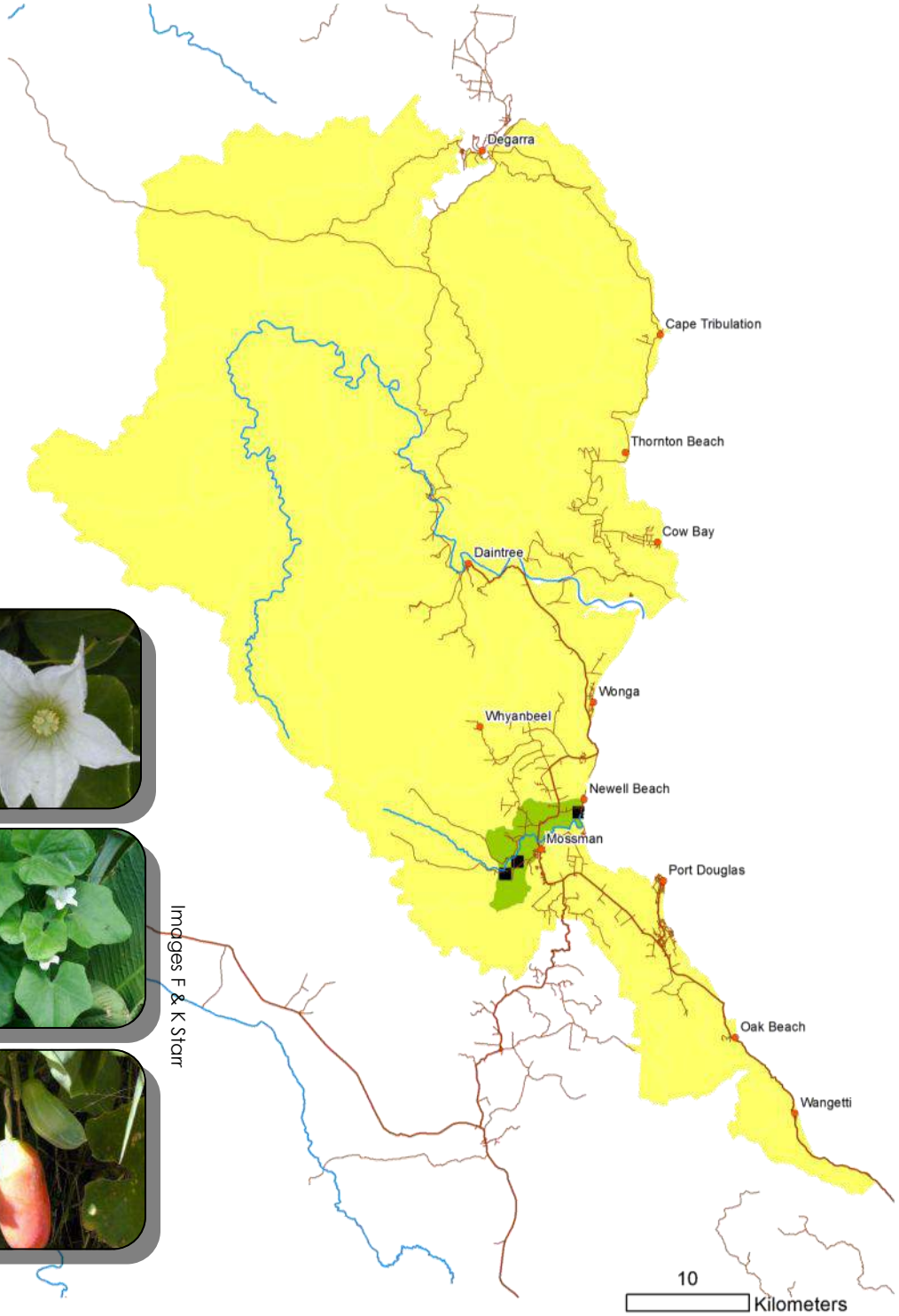
5

6

Control

Spread

Images F & K Starr

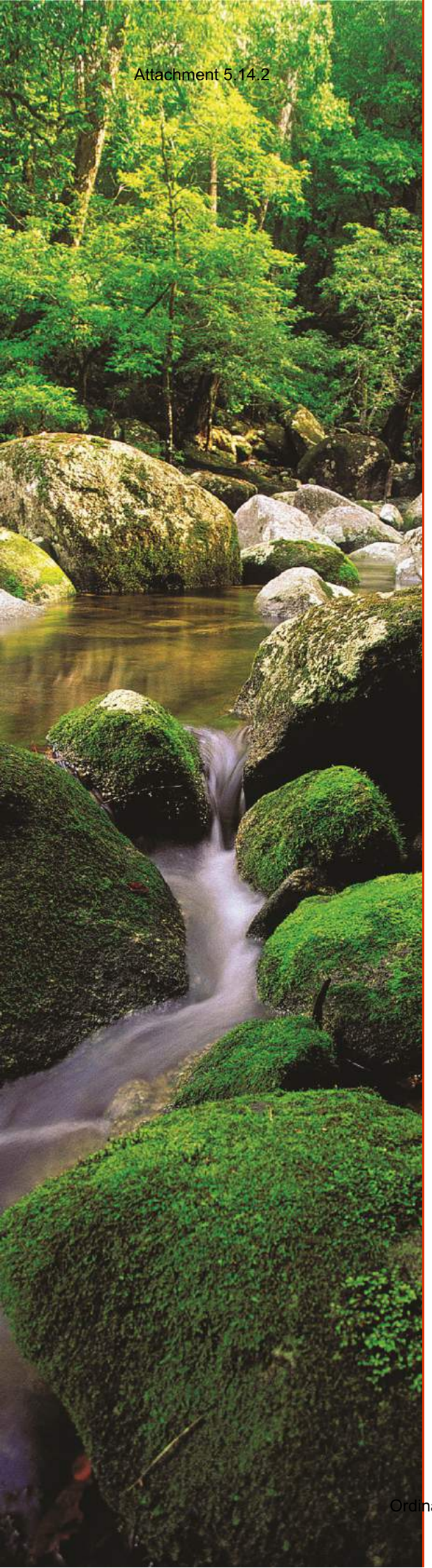


What is my biosecurity obligation?

Prevention zone	Use alternative food and medicinal plants. Dispose of garden waste responsibly and always avoid dumping of green waste. Assist control operations by maintaining access to management sites.
Eradication zone	Report any suspected outbreaks or detections to Douglas Shire on 07 40999444 . Ensure any machinery or vehicles moving from infested areas are free from plant material and soil.

For more information on management aims in each zone refer to *Using the pest plan templates*

Douglas Shire Biosecurity Management Plan 2017-21



DOUGLAS SHIRE COUNCIL INVASIVE PLANTS AND ANIMALS SURVEILLANCE PROGRAM

2018

DOUGLAS SHIRE COUNCIL

Engaging, Planning, Partnering
Muruku Kirraji - Eastern Kuku Yalanji
Nganyji pina ngunda-lum ... Ma:lnyjirri-yngku - Yirrganydji

Table of Contents

Biosecurity Program

PROGRAM NAME

The biosecurity surveillance program (the Program) for invasive biosecurity matter s48 (1) (a-d) for the Douglas Shire Council local government area, will be known as the **Douglas Shire Council Invasive Plants and Animals Surveillance Program.**

48 Main function of local government

(1) The main function under this Act of each local government is to ensure that the following biosecurity matter (***invasive biosecurity matter*** for the local government's area) are managed within the local government's area in compliance with this Act-
  (a) prohibited matter mentioned in schedule 1, parts 3 and 4;
  (b) prohibited matter taken to be included in schedule 1, parts 3 and 4 under a prohibited matter regulation or emergency prohibited matter declaration;
  (c) restricted matter mentioned in schedule 2, part 2;
  (d) restricted matter taken to be included in schedule 2, part 2 under a restricted matter regulation.

Requirement for a surveillance program

PURPOSE AND RATIONALE

The *Biosecurity Act 2014* (the Act) provides for the establishment of surveillance programs. Surveillance programs are directed at any of the following—

(a) monitoring compliance with the Act in relation to a particular matter to which the Act applies;
(b) confirming the presence, or finding out the extent of the presence, in the State or the parts of the State to which the program applies, of the biosecurity matter to which the program relates;
(c) confirming the absence, in the State or the parts of the State to which the program applies, of the biosecurity matter to which the program relates;
(d) monitoring the effects of measures taken in response to a biosecurity risk;
(e) monitoring compliance with requirements about prohibited matter or restricted matter;
(f) monitoring levels of biosecurity matter or levels of biosecurity matter in a carrier.

The objectives of the Program are:

- To confirm the presence, or determine the extent of the presence, of ***invasive biosecurity matter*** s48 (1) (a-d) in the Douglas Shire Council (DSC) local government area.
- To confirm the absence of ***invasive biosecurity matter*** s48 (1) (a-d) in the Douglas Shire Council local government area.
- To monitor compliance with the Act to ensure all people who deal with invasive biosecurity matter or a carrier are meeting their obligations as identified in the Douglas Shire Biosecurity Plan 2017-21, ***pest specific action plans***.

(https://douglas.qld.gov.au/download/community_engagement/FINAL-VERSION-Biosecurity-Management-Plan-Douglas-Area.pdf) (Pages 32-63).

- To monitor the effects of measures taken to control local priority ***invasive biosecurity matter*** (for the purpose of improving best practice management and/or to determine if the general biosecurity obligation has or will be discharged) as listed in Tables 1 & 2 taken from Douglas Shire Biosecurity Plan 2017-21. (https://douglas.qld.gov.au/download/community_engagement/FINAL-VERSION-Biosecurity-Management-Plan-Douglas-Area.pdf) (Pages 19-20).
- To monitor compliance with requirements about local priority ***invasive biosecurity matter*** as listed in Tables 1 & 2 taken from Douglas Shire Biosecurity Plan 2017-21. (https://douglas.qld.gov.au/download/community_engagement/FINAL-VERSION-Biosecurity-Management-Plan-Douglas-Area.pdf) (Pages 19-20).
    - Category 1 restricted matter must be reported to an inspector person within 24 hours.
    - Category 2 restricted matter must be reported to an inspector or authorised person within 24 hours.
    - Category 3 restricted matter must not be distributed or disposed. This means it must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is authorised in a regulation or under a permit.
    - Category 4 restricted matter must not be moved. To ensure that it does not spread into other areas of the state.
    - Category 5 restricted matter must not be possessed or kept under person's control. You may only keep this restricted matter under a permit of the Biosecurity Act 2014 or another Act.
    - Category 6 restricted matter must not be fed unless kept under a permit of the Biosecurity Act 2014 or another Act. Feeding for the purpose of preparing for or undertaking a control program is exempted.

Table 1

Top 15 priority weeds (invasive biosecurity matter) as listed in the Douglas Shire Biosecurity Plan 2017-21. (Locally declared and environmental pests are not considered biosecurity matter under the Act).

#	Common Name	Species	Categories
1	Miconia	*Miconia spp.*	2,3,4,5
2	Water Hyacinth	*Eichhornia crassipes*	3
3	Siam weed	*Chromolaena odorata*	3
4	Gamba grass	*Andropogon gayanus*	3
5	Mexican bean tree	*Cecropia spp.*	2,3,4,5
7	Pond Apple	*Annona glabra*	3
8	Water Lettuce	*Pistia stratiotes*	3
9	Parthenium	*Parthenium hysterophorus*	3
10	Salvinia / Water fern	*Salvinia molesta*	3
11	Kudzu Vine	*Pueraria montana, var lobata*	3
13	Thunbergia Sp	*Thunbergia Species*	3

15	Tobacco weed	*Elephantopus mollis*	3

Table 2

Top 3 pest animals (invasive biosecurity matter), as listed in the Douglas Shire Biosecurity Plan 2017 to 2021.

#	Common Name	Species	Categories
1	Pig (feral)	*Sus scrofa*	3,4,6
2	Dog (wild/feral)	*Canis familiaris*	3,4,6
3	Electric ants	*Wasmannia auropunctata*	1

Under the Act local governments are responsible for ensuring ***invasive biosecurity matter*** s48 (1) (a-d) for the local government's area is being managed in compliance with the Act.

Douglas Shire has a Biosecurity Plan that provides strategic direction for the management of invasive biosecurity matter and other priority pests on all land tenures within the Douglas Shire Council area and has been developed by and for the entire community. The plan has identified species that pose or are likely to pose a significant biosecurity risk to agricultural production and the environment in the Douglas Shire Council area.

The **Douglas Shire Council Invasive Plants and Animals Surveillance Program**, has been developed to ensure Council are meeting their legislative requirement's and have the necessary authorisation to ensure that the outcomes of the Douglas Shire Biosecurity Management Plan are being implemented.

Douglas Shire Biosecurity Management Plan 2017 to 2021, aims to benefit the community by preventing or reducing the impacts of pests and weeds on the economy, environment and people of the area through:

- Addressing the obligations under the Biosecurity Act 2014 for all stakeholders.
- Prioritization invasive pests and prevent the introduction and spread of invasive plants and animals within Douglas Shire based on best practice.
- Identifying the roles and responsibilities of all stakeholders involved and providing direction on managing biosecurity risks
- Building partnerships and enable better use of resources available within the community and across all land managers
- Better coordination between all stakeholders, including integrated catchment management approaches, state-wide land protection strategies and management of conservation areas.

The plan identifies the goal for managing biosecurity in the Douglas Shire Council as:

"All stakeholders working together to implement ongoing, coordinated and effective biosecurity management across the Douglas Shire Council area."

MEASURES THAT ARE REQUIRED TO ACHIEVE THE PURPOSE

The key activities undertaken by the Program include but are not limited to:

Surveillance to monitor presence, absence, control measures and compliance.

- Surveillance to check for the presence, extent or levels of the presence, or absence of ***invasive biosecurity matter*** s48 (1) (a-d) in the DSC local government area. This surveillance will be conducted by entry of ground teams onto a place using a variety of vehicles (Vehicles and ATVs) and on foot to conduct visual inspections, however, aerial survey by visual or photographic inspection using manned helicopters or Unmanned Aerial Vehicles (UAVs) may also be utilised. Surveillance in riparian and adjacent areas may also be undertaken utilising watercraft including but not limited to boats and amphibious vehicles.
- During surveillance and monitoring activities, Authorised Officers may take samples for identification, research and educational purposes.
  - For weed species this may require taking a whole or part of a plant specimen.
  - For animal species this may require collecting whole or parts of an animal or collecting animal leavings such as scats.
- Surveillance at suspected or existing pest infestation locations using surveillance measures such as, but not limited to, cameras using a variety of imaging techniques in order to determine prevalence and frequency at site of pest animal species or animal species feeding on weedy pests.
- Monitoring of treated areas to determine the effectiveness of control, for invasive plants this is also to ensure no recruitment, by monitoring the seed bank until it is exhausted, this may take many years depending on the species.
- Surveillance to establish compliance and collection of evidence in cases of suspected non-compliance.
- Investigate instances of reported non-compliance (prohibited animals).

POWERS OF AUTHORISED OFFICERS

Entry of place

The Act provides that authorised officers appointed under the Act may, at reasonable times, enter a place situated in an area to which a biosecurity program applies, to take any action authorised by the biosecurity program[1]. These activities must be done in a timely and efficient manner to ensure that the measures are as effective as possible. The Program will authorise entry into places to allow these measures to be undertaken.

In accordance with the Act a reasonable attempt will be made to locate an occupier[2] and obtain the occupier's consent to the entry prior to an authorised officer entering a place to undertake activities under the Program. Nevertheless, an authorised officer may enter the place if[3]—

(a) The authorised officer is unable to locate an occupier after making a reasonable attempt to do so; or
(b) The occupier refuses to consent to the entry.

[1] See section 261 (Power to enter a place under biosecurity program) of the Act.
[2] The Act defines an ***occupier***, of a place, generally to include the person who apparently occupies the place (or, if more than 1 person apparently occupies the place, any of the persons); any person at the place who is apparently acting with the authority of a person who apparently occupies the place; or if no-one apparently occupies the place, any person who is an owner of the place.
[3] See section 270 (Entry of place under sections 261 and 262) of the Act.

If after entering a place an authorised officer finds an occupier present or the occupier refuses to consent to the entry—an authorised officer will make reasonable attempts to produce an identity card for inspection and inform the occupier of the reason for entering and the authorisaton under the Act to enter without the permission of the occupier. An authorised officer under the biosecurity program must make a reasonable attempt to inform the occupier of any steps taken, or to be taken, and if steps have been taken or are to be taken, that it is an offence to do anything that interferes with a step taken or to be taken.

An authorised officer must leave a notice in a conspicuous position and in a reasonably secure way. This notice must state the date and time of entry and information addressing the reason for entry, authorisation to enter a place and the steps undertaken by the authorised officer after entry.

Power to carry out aerial controls measures

The power to carry out aerial control measures is authorised by a biosecurity program under the Act[4] .

Obligations

The following obligations may be imposed on a person who is an occupier of a place to which the program relates, limited to the extent of requirements in this surveillance program.

- Maintaining, within reasonable limitations, already existing accesses (such as tracks) or locations (such as boat launching areas) that are required for pest surveillance purposes for this program only.
- Obligations associated with prohibited and restricted matter categories for all invasive biosecurity matter on all lands tenure within the DSC local government area (Table 1 and Table 2)
- Occupies are obligated to comply with prohibtited and restricted matter categories. Authorised officers may collect evidence and use evidence of non-compliance with restricted and prohibtited matter categories to take further legal action against the occupier and/or owner of the matter.
- Occupiers are to discharge their GBO in relation to invasive biosecurity matter. If the authorised officer forms the beilef that the occupier has not or may not discharge their GBO then the authorised officer may issue a biosecurity order.
- A person within the area of the Program is obliged to allow an authorised officer operating under the Program to enter a place to undertake monitoring or surveillance activities for invasive biosecuirty matter.

General powers of authorised officers

Nothing in the Program or its associated Authorisation limits the powers of authorised officers under Chapter 10 of the Act.

CONSULTATION

If DSC Authorised Officers work in collaboration with authorised Officers from another organisation (i.e. Biosecurity QLD):

- Information sharing of biosecurity risks extents and locations and any documentation and identifying information required to do so will be expected to be shared. This will be limited to information that is no more than is required for those purposes.
- Authorisation will be shared between organisations (where appropriate) allowing authorised Officers to work and contribute on each other's projects.

The Program was sent to Biosecurity Queensland as at 17th October 2017 for review and comment.

Authorisation of a surveillance program in the Douglas Shire Council area.

AUTHORISATION STATEMENT

The CEO of Douglas Shire Council acting pursuant to section 235 of the *Biosecurity Act 2014* (the Act), authorises the Program for ***invasive biosecurity matter*** s48(1)(a-d) (the Program) in Douglas Shire Council Local Government area, on the basis that:

I am satisfied that the pests listed in the biosecuirty surveillance program, the **Douglas Shire Council Invasive Plants and Animals Surveillance Program,** pose a significant biosecurity risk to biosecurity considerations in Queensland; and

I am satisfied that surveillance activities are required to determine the presence or absence of these pests; and

I am satisfied that checking compliance with the Act and enforcement are required for the restriction category requirements; and

I am satisfied that activities are required to monitor the effects of the measures taken in response to the biosecurity risk of the pests listed in the biosecuirty surveillance program, the **Doulas Shire Council Invasive Plants and Animals Surveillance Program**.

<insert details of Council resolution> e.g. As passed by Council resolution number XXX on this date XXX.

BIOSECURITY MATTER

The biosecurity matter to which the Program relates is ***invasive biosecurity matter*** s48(1)(a-d).

PURPOSE OF THE PROGRAM

The purpose of the Program is to identify the extent and location of infestations of ***invasive biosecurity matter*** pests in the Douglas Shire Council Area as identified in the Douglas Shire Biosecurity Plan 2017-2021.

- To confirm the presence, or determine the extent of the presence, of ***invasive biosecurity matter*** s48 (1) (a-d) in the Douglas Shire Council (DSC) local government area.
- To confirm the absence of ***invasive biosecurity matter*** s48 (1) (a-d) in the Douglas Shire Council local government area.
- To monitor compliance with the Act to ensure all people who deal with invasive biosecurity matter or a carrier are meeting their obligations as identified in the Douglas Shire Biosecurity Plan 2017-21, ***pest specific action plans***.
- To monitor the effects of measures taken to control local priority ***invasive biosecurity matter*** (for the purpose of improving best practice management and/or to determine if the general biosecurity obligation has or will be discharged) as listed in Tables 1 & 2 taken from Douglas Shire Biosecurity Plan 2017-21.
- To monitor compliance with requirements about local priority ***invasive biosecurity matter*** as listed in Tables 1 & 2 taken from Douglas Shire Biosecurity Plan 2017-21.
    - Category 1 restricted matter must be reported to an inspector person within 24 hours.
    - Category 2 restricted matter must be reported to an inspector or authorised person within 24 hours.
    - Category 3 restricted matter must not be distributed or disposed. This means it must not be given as a gift, sold, traded or released into the environment unless the distribution or disposal is authorised in a regulation or under a permit.
    - Category 4 restricted matter must not be moved. To ensure that it does not spread into other areas of the state.
    - Category 5 restricted matter must not be possessed or kept under person's control. You may only keep this restricted matter under a permit of the Biosecurity Act 2014 or another Act.
    - Category 6 restricted matter must not be fed unless kept under a permit of the Biosecurity Act 2014 or another Act. Feeding for the purpose of preparing for or undertaking a control program is exempted.

AREA AFFECTED BY THE PROGRAM

The Program will apply to all lands tenure within the Douglas Shire Council Area.

For priority invasive biosecurity matter both weeds and animals, sub-catchment management zones have been specified in the Doulas Shire pest Specific Action Plans as appendices to the Douglas Shire Biosecurity Plan 2017-2021. This specifies, for each of these pests, surveillance and management strategies per region within the Douglas Shire Council area. This gives direction on surveillance effort and surveillance strategy for each of these weeds in the identified areas.

As the public is an important source of information for DSC, any reported pest specific information will inform direction of investigations for extent and location of biosecurity risks.

POWERS OF AUTHORISED OFFICERS

An authorised officer of the Program appointed under the *Biosecurity Act 2014*, may enter a place—other than a residence[5]—without a warrant and without the occupier's consent within the State of Queensland under the Program[6] [7]. An authorised officer can exercise the powers of an authorised officer under the Act in relation to the Program, if the authorised officer is appointed by the chief executive[8].

An authorised officer may make a requirement (a ***help requirement***) of an occupier of the place or a person at the place to give the authorised officer reasonable help to exercise a general power[9].

An authorised officer may carry out, or direct another person to carry out, aerial control measures for invasive biosecurity matter. Under the Program these measures include aerial survey by visual or photographic inspection using an airborne machine, person in an aircraft vehicle (i.e. plane, helicopter), Unmanned Aerial Vehicles (UAVs) or Satellite in line with legislative requirements for the use of such.

An authorised officer has general powers after entering a place to do any of the following[10]:

General powers in the Act	Measures an authorised officer may take under the Program
Search any part of the place	*Destroy biosecurity matter or a carrier if the authorised officer believes on reasonable grounds the biosecurity matter or carrier poses a significant biosecurity risk and the owner of the biosecurity matter or carrier consents to its destruction.* *Searching a place to check for the presence or absence of invasive biosecurity matter.* *Inspect, examine and film to assist with tracing of carriers to and from a place.* *Take samples for the purposes of diagnostic analysis, to ascertain the presence or absence of invasive biosecurity matter.* *Identify carriers such as Hay Bales with tags, notices, flags or signs for any purpose consistent with the*
Inspect[11], examine[12] or film[13] any part of the place or anything at the place	
Take for examination a thing, or a sample of or from a thing, at the place	
Place an identifying mark in or on anything at the place	
Place a sign or notice at the place	
Produce an image or writing at the place from an electronic document or, to the extent it is not practicable, take a thing containing an electronic document to another place to produce an image or writing	
Take to, into or onto the place and use any person, detection animal, equipment and materials the authorised officer reasonably requires for exercising the authorised officer's powers under this division	

[5] The Act defines a ***residence*** **to mean a premises or a part of a premises that is a residence with the meaning of section 259(2) and 259(3).**
[6] See section 259 (General powers to enter places) of the Act.
[7] See section 261 (Power to enter a place under biosecurity program) of the Act.
[8] See section 255 (3) (Powers of particular authorised officers limited) of the Act.
[9] See section 297 (Power to require reasonable help) of the Act.
[10] See section 296 (General powers) of the Act.

[11] Section 296(5) defines ***inspect***, a thing, to include open the thing and examine its contents.
[12] Section 296(5) defines ***examine*** to include analyse, test, account, measure, weigh, grade, gauge and identify.
[13] Section 296(5) defines ***film*** to include photograph, videotape and record an image in another way.

Destroy biosecurity matter or a carrier if: • the authorised officer believes on reasonable grounds the biosecurity matter or carrier presents a significant biosecurity risk; and • the owner of the biosecurity matter or carrier consents to its destruction	*Program.* *Producing a written and/or electronic note(s) to support Program activities.* *Taking GPS coordinates to ensure accuracy of location details of carriers or invasive biosecurity matter.*
Remain at the place for the time necessary to achieve the purpose of the entry	*Take a document such as Sale/ Movement record that are relevant to the objectives of the Program.*
The authorised officer may take a necessary step to allow the exercise of a general power	
If the authorised officer takes a document from the place to copy it, the authorised officer must copy and return the document to the place as soon as practicable	
If the authorised officer takes from the place an article or device reasonably capable of producing a document from an electronic document to produce the document, the authorised officer must produce the document and return the article or device to the place as soon as practicable	

OBLIGATIONS IMPOSED ON A PERSON UNDER THE PROGRAM

The following obligations may be imposed on a person who is an occupier of a place to which the program relates, limited to the extent of requirements in this surveillance program.

- Maintaining, within reasonable limitations, already existing accesses (such as tracks) or locations (such as boat launching areas) that are required for pest surveillance purposes for this program only.
- Obligations associated with prohibited and restricted matter categories for all invasive biosecurity matter on all lands tenure within the DSC Local Government area (Table 1 and Table 2)
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- Occupiers are to discharge their GBO in relation to invasive biosecurity matter. If the authorised officer forms the beilef that the occupier has not or may not discharge their GBO then the authorised officer may issue a biosecurity order.
- A person within the area of the Program is obliged to allow an authorised officer operating under the Program to enter a place to undertake monitoring or surveillance activities for invasive biosecuirty matter.

COMMENCEMENT AND DURATION OF THE PROGRAM

The Program will begin on 1 January 2018 and will continue until 31 December 2018. The duration of the program is considered to be reasonably necessary to achieve the Program's purpose.

CONSULTATION WITH RELEVANT PARTIES

As required by the Act[14], the chief executive officer of Douglas Shire Council has consulted, prior to the authorisation of the Program, with the chief executive, Department of Agriculture and Fisheries.

NOTIFICATION OF RELEVANT PARTIES OF REQUIREMENTS

As required by the Act[15], the chief executive officer of Douglas ShireCouncil will give public notice of the Program 14 days before the Program starts by:

- giving the notice to each government department or government owned corporation responsible for land in the area to which the Program relates; and
- publishing the notice on the Douglas Shire Council website: https://douglas.qld.gov.au/

From the start of the Program, the Authorisation and the **Douglas Shire Council Invasive Plants and Animals Surveillance Program** will be available for inspection or purchase [16] at the Douglas Shire Council Administration office at: 64-66 Front Street, Mossman.

[14] See section 239 (Consultation about proposed biosecurity program) of the Act.
[15] See section 240 (Notice of proposed biosecurity program) of the Act.
[16] See section 241 (Access to authorisation) of the Act.