Far North Queensland Local Government

Regional Pest Management Strategy 2010 - 2015

Weedspread prevention
Strategic pest animal management
Data collection and mapping
Weed identification workshop
Far North Queensland
Local Government
Regional
Pest Management
Strategy 2010 - 2015

‘To foster collaboration and resource sharing between councils and effectively advocate on agreed regional positions and priorities’
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The Regional Pest Management Strategy is an initiative of Far North Queensland Local Governments with significant contributions to the development and delivery from Biosecurity Queensland (DEEDI) and Terrain NRM.

In addition, the following organisations have been consulted for input to develop this draft Regional Strategy either through invitation to the regional planning workshop held in November 2008, participation in pre-workshop surveys, or face-to-face consultations:

- Canegrowers
- Conservation Volunteers Australia
- Queensland Parks and Wildlife
- Ergon Energy
- CSIRO
- Department of Natural Resources and Water
- Forestry Plantations Queensland
- Wet Tropics Management Authority
- Sunwater
- Growcom
- Department of Main Roads
- Powerlink

This review of this document was compiled by Kirby Doak FNQROC as the result of a review workshop in December 2008. Additional edits by Travis Sydes FNQROC, with support and assistance from numerous local government staff and the FNQ Natural Asset Management Advisory Committee (FNQ NAMAC).

Also, recognition must remain with the late Garry Werren, author of the FNQLGPPAC Regional Pest Management Plan Integrated, Stage 4 – Regional Pest Management Plan: the strategy (2004), as much of this visionary document remains within the Regional Strategy.

All images by Kirby Doak.
Summary

The Regional Strategy (FNQ Local Government Regional Pest Management Strategy 2010 – 2014) continues to be representative of FNQROC member councils and their partners’ collective effort being greater than the sum of its parts, in respect to reducing impacts from pest animals and weeds.

The Regional Strategy represents the integration of local council pest management plans for the FNQROC member councils that were initially collated for the development of the ‘FNQ Local Government Pest Plan Advisory Committee Regional Pest Management Plan Integration stage 4 – Regional Pest Management Plan: the strategies 2004’. The 2004 Strategy was reviewed through workshop processes and updated in February 2006.

FNQ Regional Strategy Vision

*Far North Queensland Natural Assets are managed to reduce pest animal and weed impacts to ensure positive economic, environmental, and social outcomes.*

The Regional Strategy was developed through a review process of the 2006 Strategy and a pest planning workshop of Local Government representatives, Biosecurity officers, Terrain NRM staff, and other regional partners in November 2008 that set future vision, mission, goals, objectives, and actions.

FNQ Regional Strategy Mission

*To identify, record, and prevent the establishment or the spread of pest plants and animals within the FNQROC member council area, to ensure that councils and all stakeholders meet their community NRM expectations and obligations under the Land Protection (Pest and Stock Route Management) Act 2002.*
The Principles

The Regional Pest Management Strategy 2010 – 2015 is based on eight key principles:

1. Prioritisation of management of pest species, landscape and investments must be informed by an asset management approach;

2. Building resilient landscapes to maintain diverse and healthy ecosystems and agricultural sustainability, both in economic and environmental terms, is an ultimate outcome;

3. Monitoring and review, that is coupled with research, is essential of management systems;

4. Early detection, intervention and prevention of pest spread are the most cost effective techniques for managing weeds;

5. Information handling and communication between all levels of land managers, regardless of tenure, is fundamental;

6. Community awareness and education is essential and an integral part of the sustainable management of natural resources by ensuring community members understand the economic, environmental and human health impacts from pest animals and weeds;

7. Building stakeholder capacity is fundamental to achieve pest management outcomes; and

8. Cross-boundary consistency through shared Responsibilities and Actions that have all partners with a clear understanding of their responsibilities that include a high-level political will.
Introduction

Far North Queensland’s climate, spectacular scenery, biological diversity, cultural values, and economic productivity define its distinctive character. However, weeds and pest animals are an increasing threat to the regions’ assets. This threat is not new to FNQ and considerable time, effort and financial resources have been invested in coordinating regional pest management across 193,000 km². This landscape (representing 11.2% of Queensland) encompasses the artificial boundaries of five local government areas, two Indigenous community councils, catchment groups and other land use agencies and industry in FNQ.

Estuary at Cedar Bay – a natural icon threatened by potential incursions of weeds, including pond apple, a Weed of National Significance (WONS).

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This Regional Strategy will allow better use of resources available within the community and government to manage this threat through strategically addressing priority pests and landscape areas. It provides strengthened linkage with NRM initiatives and various other planning layers, including strategies for Weeds of National Significance (WONS).

Also, the Regional Strategy forms the pest management component of the Sustaining the Wet Tropics – A Regional Plan for Natural Resource Management 2004-2008 (NRM) Plan.

Jane Page (Barron River Catchment coordinator) explains how hymenachne spreads. Hymenachne is threatening hundreds of kilometres of the Barron River and it will take an effort from every manager adjacent to the river to preserve this natural asset.
Goals

The following four goals will be implemented through strategic measurable actions. The Regional Strategy identifies the following goals and objectives to realise its vision:

Goal 1:

All stakeholders have awareness, capacity, ownership, and commitment to their roles and responsibilities.

1.1 Relevant information, tools and knowledge is available to meet the needs of interest groups, e.g. cane farmers to urban gardeners.

1.2 Community is aware of the principles of landscape management and are a part of the solution

1.3 Regional partners and individual land managers understand their roles and responsibilities

1.4 The principles of landscape management are taught alongside demonstrating management actions

Goal 2:

Prevention and early intervention is recognised as a high priority strategy and is supported by effective action by all stakeholders

2.1 Identify and encourage lead agencies to meet their responsibility to reduce risk of new introductions to the region

2.2 The region identify its priorities and responsibilities to manage new pest introductions

2.3 Region rapidly respond appropriately to prioritised actions

2.4 Raised use of prioritisation tools given to preventative actions

2.5 Targeted research on control
Goal 3:
**Strong partnerships support collective actions and consistency in funding.**

3.1 Seven local councils have common targets, action plans, information
3.2 Further developed partnership systems and supports
3.3 All land manager agencies across all land tenures recognise and act on regional priorities and support by appropriate resources
3.4 Internal systems and structures similar
3.5 To demonstrate a strong case for long term consistent funding

Goal 4:
**The management of pests across landscapes is guided by cost benefit frameworks**

4.1 Adaptive management - system learning’s utilised
4.2 Rapid sharing of learned practises
4.3 Coordinate and integrate priorities across landscapes
4.4 Build systems to support research and management alignment
4.5 Embed principles of NRM in all stakeholder groups
4.6 Prioritise and support use of decision support tools to decision makers
**Context and Purpose**

Pest plants and animals pose some of the most significant threats to regional natural assets. The Regional Strategy represents the integration of local council pest management plans for the FNQROC member councils that were initially collated for the development of the ‘FNQ Local Government Pest Plan Advisory Committee Regional Pest Management Plan Integration Stage 4 – Regional Pest Management Plan: the Strategies 2004’.

The plan identified the key benefits of a regional strategic approach were:

- identification of pest management problems and methods for addressing these problems
- increased coordination and effectiveness of involved agencies and organisations; and
- encouragement of agencies to share information, develop coordinated efforts, decrease duplication of efforts and collaboratively support implementation actions

A pest planning workshop of Local Government representatives, Biosecurity officers, Terrain NRM staff, and other regional partners was conducted in November 2008 as part of the further development of the Regional Strategy. The development of the Regional Strategy Actions also included review of the previously identified regional actions from the workshop conducted in 2004.

This Regional Strategy remains the desired outcome of the seven FNQ local governments and their partners to provide the following benefits:

- linkage with and support for regional: NRM plans and initiatives e.g. Weeds of National Significance and Water Quality Improvement Plans; Sustainable land use; State-wide Biosecurity land protection strategies; Integrated Catchment Management (ICM) strategies; and Local Government strategic and related plans;
- a better use of resources available within the community and government throughout the region to strategically address priority pests and landscape areas;
- more comprehensive basis for making pest management resource allocations within a regional context;
- more efficient and cost-effective meeting of Local Government responsibilities under the Land Protection (Pest and Stock Route Management) Act (2002);
- improved community appreciation of Local Government efforts and increased effectiveness in meeting community needs; and
- evidence of Local Government accountability at both State and National Levels and within the wider community

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4 Cook Shire Council, Wujal Wujal Aboriginal Shire, Council, Cairns Regional Council, Yarrabah Aboriginal Shire Council, Cassowary Coast Regional Council, Hinchinbrook Shire Council and Tablelands Regional Council
Geographic context and neighbouring plans

The planning environment ranges from wet tropical to wet-dry (monsoonal) in character and is significantly predisposed to new weed and pest animal incursions due to its exposure by several potential major pest entry points. Although the FNQROC administrative region incorporates Cape York Peninsula this strategy extends to only southern areas of the Cook Shire administrative boundary. This strategy seeks to align on the boundary to the north with the Cape York Pest Management Strategy and to the south with the Burdekin Dry Tropics Regional Pest Management Strategy. The principal NRM plan this strategy aligns with is the Sustaining the Wet Tropics (A regional plan for natural resource management 2004-2008).
Achievements

The 2004 - 2008 regional pest management strategies provided a strategic framework for managing pest animals and weeds at a regional level, which has led to improved coordination and integration of pest animal and weed management efforts regionally.

Major achievements include:

- Development of the list of regional priority weeds and pest animals, which identifies the regionally agreed priority species for control and management;
- Regional agreement on resource sharing and actions on the priority regional weeds for eradication such as miconia, siam weed and limnocharis and Weeds of National Significants such as pond apple and hymenachne;
- Development of the Regional Weed Spread Prevention Strategy, Emergency Response Code of Practise and resources such as the Portable Clean Down facilities to promote and support consistency in regional weed spread prevention activities;
- Marked increases in the understanding of weeds and pest animals management and in the aggregate skill in weed management across the region e.g. feral deer and rabbit management and utilising revegetation techniques in weed control;
- Strengthening of the coordination between local councils and administrative bodies in weed and pest animal management efforts, including significant regional training and up-skilling in data collection, community engagement and weed identification; and
- Strengthening monitoring and evaluation through improvement in the use of mapping hardware and software and a regional centralised data management system.

Detailed information on FNQ regional local government achievements is available on the Far North Queensland Regional Organisation of Councils (FNQROC) website at www.fnqroc.qld.gov.au

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5 Formally known as FNQ Local Government Pest Plan Advisory Committee FNQ Regional Pest Management Plan (2006).
Regionally identified pest priorities  
Regional pest animal and plant priorities were investigated within each individual council Pest Management Plan (Werren 2003a).

Pest animals present within the planning area, and addressed in local pest management plans were assigned to three priority classes. These comprise:

(i) High priority exotic species that are widespread and regionally significant or at risk of significantly increasing in populations e.g. feral pigs, wild dogs and rabbits;

(ii) Medium priority exotic species that are less widespread or which incur only on some parts of the planning area e.g. feral horse; and

(iii) Certain species (including native pest) that present particular economic, social or environmental problems to the community that may warrant some degree of Local Government control assistance e.g. Indian Myna.

With regard to the latter, it is recognised that responsibility for native species is clearly vested in the State and arguably beyond the realm of local government.

Figure 3 Growing rabbit populations are an increasing threat to the agricultural and natural assets of FNQ tablelands
Figure 4 Fire weed (Senecio madagascariensis) was identified in 2007 in the FNQ region and is a significant threat to grazing enterprise

**Weed species** from the planning area that attracted high to medium priority control attention within the local government Pest Management Plans were assessed under four categories.

1. **Recommended for attempted eradication.** These comprise in part Class 1⁶ plants and weeds that are in comparatively early stages of establishing within the region. They can be considered directly comparable to Queensland Class 1 Declared weeds since, in most instances, eradication is a possible outcome.

2. **Additional weeds (mostly WONS) ranked very highly.** These are present within the planning area as scattered to widespread infestations or occur only in certain sections of the region – i.e. either in the drier west and northern sectors or along the wet tropical coast and/or adjacent ranges. A strategic approach to infestations being contained and reduced within the planning area is a key recommendation.

3. **A further subset of weeds is considered to warrant secondary control attention within the Regional Strategy.** Eradication is not achievable but strategic containment of infestations is recommended regionally, along with elimination of isolated infestations and appropriate follow-up treatment.

4. **The remaining priority weeds receive various degrees of control priority.** Of these some are State-Declared and warrant control attention commensurate with their classification. While presenting a variety of problems, both environmental and economic, these constitute generally low regional priorities. At the same time some weeds may properly warrant higher priority within individual local governments, wherein neighbouring areas are encouraged to cooperate in that regard.

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⁶ The Land Protection Act specifies three levels (classes) of pests. Class 1 (previously P1) pests whose introduction into the State is prohibited; Class 2 (P2) pests that are to be destroyed throughout the State or parts thereof; and Class 3 (P3) pests whose numbers and/or distribution are to be reduced throughout the State or parts thereof.
Arrangement to Regional Strategy

Pest management planning is a statutory requirement of Local Government as prescribed by the Land Protection (Pest and Stock Route Management) Act 2002 and is influenced by a number of other Federal and State acts, strategies and agreements (refer Figure 2). Each FNQROC member local government will have individual pest management action plans, reviewed annually, in which pest priorities have been addressed and control applied in accordance with the Regional Strategy.

The Regional Strategy forms the basis of the Pest Management component within the Sustaining the Wet Tropics – A Regional Plan for Natural Resource Management 2004-2008 (NRM) Plan.

Figure 5 The Regional Pest Management Strategy delivers the invasive species management component of the the regional NRM plan. These strategies are informed and supported by a range of plans, strategies and guidelines

The Regional Strategy incorporates pest animal and weed management as an integral component of NRM and set targets in this area. However this does not mean NRM Boards will be involved operationally in pest management initiatives. This will continue to remain a leading responsibility of the DEEDI, and land managers and the Board’s role is more appropriately to support the achievement of pest management targets through funding of priority projects/activities regionally and through appropriate liaison, lobbying and encouragement of stakeholder initiatives.
**Regional advisory structure**

The region is supported by an advisory structure that operates on a variety of levels across the key areas of natural asset management relevant to the region. Ongoing work on these important relationships is integral to maintaining a two way flow of information between areas of technical and operational expertise and those of administration and governance.

![Diagram of advisory structure](image)

Figure 6 The region draws on a range of communication and advisory structures to maintain partnerships between stakeholders

On a regional level, local governments are also represented on a variety of levels within key management and advisory roles like the National Tropical Weeds Management Committee and National WoNS management groups.
**Natural Asset Use**

“Most human activities one way or another depend on the natural assets of the region, whether it be the environmental values that attract tourists, or whether it is the soils that support tropical agriculture and forest resources” (FNQNRM and Rainforest CRC, 2004).

The following (Figure 1) illustrates the major land use, and subsequently illustrates agencies and industry that have a significant role to play in ensuring the FNQ natural assets are adequately maintained.

![Land use in North Queensland](image_url)

*Figure 7 Land use in North Queensland (based on 1999 QLUMP data)*
Obstacles and momentums which influence achieving the Regional Strategy vision.

The Regional Strategy planning workshop in November 2008 identified a range of issues that affect the Regional Strategy achieving the Vision. These ranged from the obstacle of ‘political priorities’ to the momentum of ‘being able to build on experience and progress’ (see appendix 4).

Figure 9 Emma Leslie (Forestry Plantations Queensland) at the planning workshop in November 2008 explains an obstacle/momentum that will affect the Regional Strategy achieving the vision

The general themes in which the obstacles and momentums could be grouped, and align with the Regional Strategy Goals, were:

- Political understanding and will
- Community engagement
- Knowledge and capacity
- Institutional structure
- Decision making and implementation

The intent of the exercise was to explore various issues that impinge on the pest management planning process and which can constitute obstacles to effective regional integration of issues and priorities. These issues have been specifically addressed through the Regional Strategy Actions.


**Pest Management Principles**

Since 2005 the region has invested in a dedicated regional pest management officer (RPMO) positioned within FNQROC to ensure the principles of pest management are followed. Subsequently, the role has enhanced the abilities of the FNQ Councils to manage pest animals and weed impacts. The position works closely with Terrain, State government agencies, community organisations, and other land managers to ensure integrated outcomes are met. This position aligns to the following pest management principles:

1. **Prioritisation of management of pest species, landscape and investments must be informed by an asset management approach**

   This strategy is fundamental to meeting the objective of ensuring that limited resources are directed at pests commensurate with their control priority across an extensive and diverse planning region. Priorities need ongoing review as pest status or other factors change such as landscape values. Prioritisation has involved species identified in the Northern Australia Quarantine Strategy (NAQS) alert lists, WONS, State Declaration status and priorities established in individual pest management plans across the region, but more recently is the recognition of decision support tools to priorities landscape areas.

2. **Building resilient landscapes to maintain diverse and healthy ecosystems and agricultural sustainability, both in economic and environmental terms, is an ultimate outcome**

   A resilient landscape should maintain diverse and healthy ecosystems and agricultural sustainability both in economic and environmental terms. It requires minimal input in terms of maintenance and resources. Poorly managed landscapes on the other hand are more susceptible to weed and pest animal invasions that will ultimately diminish the integrity of the ecosystem and its long term sustainability and increase management costs.

   Landscapes that are maintained in good health should keep significant weed infestation to a minimum. This leads to more efficient management of land and subsequent economic returns for land managers. Therefore, facilitating the establishment of resilient landscapes.
is a particularly practical tool in weed management practices, and this is particularly the case in areas prone to weed incursions along heavily used pathways.

Fundamental to this is ongoing monitoring of the benefits of rehabilitated landscapes. Regular checks for problem areas and adjusting practices to prevent future infestations is critical.

3. Monitoring and review, that is coupled with research, is essential of management systems

This principle embodies the fact that regular monitoring and evaluation can lead to continual improvement to practice. In the planning context it also provides a means through which the meeting of targets can be assessed. It is a principle that underpins the pest management planning process.

Pest control, particularly chemical control methods, is constantly changing due to the ongoing research into the development of novel herbicides and application techniques. Without monitoring and evaluation of applications the adoption of appropriate techniques, that may vary in terms of the rates and types of herbicides applied from area to area and at different times during the year, may be diminished. While monitoring and evaluation are intrinsic to pest management within each LGA, there is scope for regional assessment of pest control efforts, particularly with regard to integrated and strategic control.

Systematic monitoring of especially vulnerable areas of the landscape in order to detect weed establishment is required.

4. Early detection, intervention, and prevention of pest spread are the most cost effective techniques for managing weeds

Early detection, intervention, and prevention are the most cost effective defence mechanisms to minimise the spread of weeds and their subsequent impact on Far North Queensland agriculture, natural environment, and human health.

Minimising the spread of pest weeds does save considerable cost from increased impacts and subsequent cost of control. Communication, education and awareness play vital roles in providing a changing culture towards the holistic approach to weed spread prevention. Weed spread prevention must be included as an integral component in the development of future local government, agency, and industry pest management plans. There must also be available tools such as clean down facilities to ensure the region can be kept free of any further unwanted weeds.

The utilisation of improved mapping hardware such as PDA’s and GBM Mobile software is ensuring more accurate data collection and efficiencies in data management, which the entire region and its partners can utilise
5. Information handling and communication between all levels of land managers, regardless of tenure is fundamental

The importance of making the wider community aware of pest issues, enabling them to identify problem species, and generally educating them on matters of pest control is considered fundamental to effective pest management. Since pests range across most boundaries and infest land under very different tenure, it is essential that pests can be identified and pest issues be understood by the wider community.

Education tools such as the ‘FNQ Local Council Priority Weeds CD’ assist with the regional identification of weed species that have been determined to be locally important in the Far North Queensland region. It is one educational tool, along with many others such as Queensland Fact Sheets and National Weed Alerts which will be required to help identify, record, and prevent the establishment or the spread of pest plants and animals.

6. Community awareness and education is essential and an integral part of the sustainable management of natural resources by ensuring community members understand the economic, environmental and human health impacts from pest animals and weeds

As part of the environment, people are also inherently part of the management solution to environmental problems. When equipped with the right information and support, we are all capable of contributing to solutions. However, to achieve real improvements in the condition of our natural landscape assets, these contributions must be made collectively, at the community-scale. An empowered community is one that is able to genuinely participate in shaping or adapting to the inevitable changes occurring in our environment.

Pest management is an integral part of the holistic and integrated approach to managing the FNQ regions natural assets. The responsibility for raising community awareness and encouraging responsible behaviour towards potentially threatening plants and animals belongs to our whole community. Our success depends on our ability to equip both current and future land managers to make informed and balanced decisions about the environment and their relationship to it.

The Far North Queensland community recognises the role of knowledge and awareness in shaping change and building resilience. The challenge for environmental practitioners is to find better ways of connecting people with their landscape, instilling community ownership, and encouraging participation in caring for the environment. True community engagement is therefore fundamentally linked to the sustainable management of our natural landscape and its associated resources (Rachel Wicks pers. comm.).
7. Building stakeholder capacity is fundamental to achieve pest management outcomes

Facilitating opportunities for training, mentoring, and operational practise FNQ stakeholder capacity to achieve positive pest management outcomes is possible. However, it is necessary for an interested / mentor person within each stakeholder group to take an active role in disseminating information and encouraging best practice.

Building capacity cannot be achieved through a ‘top down’ process of simply providing strategies in increase awareness, information to improve knowledge and training to develop skills. Capacity building is as much about process as it is about achieving outcomes and should occur throughout the process of strategy development and strategy implementation, FNQ NRM Ltd and Rainforest CRC (2004).

8. Cross-boundary consistency through shared Responsibilities and Actions that have all partners with a clear understanding of their responsibilities, that includes a high-level political will

The Regional Strategy encourages strong stakeholder involvement in pest management, though ownership of related plans and actions. Effective pest management can only be achieved with the involvement of all relevant stakeholders. To achieve maximum effectiveness of the Regional Strategy implementation, it is important that stakeholders agree on common policy and consistent practice.

Individually all stakeholders have a major role in supporting the Regional Strategy through the implementation of Actions.

It is likely many cross boundary initiatives will involve a ‘shared responsibility’ approach, involving two or more land managers that have identified an area / issue of common interest. Where this occurs, a documented arrangement should be agreed to by all stakeholders. Documentation could be in the form of sub-catchment management plans, memorandum of agreement or board endorsements, recorded within the meeting minutes, to name but a few.

The Guide “Engaging schools in pest management education” was developed to assist those responsible for pest animal and weed management in FNQ to engage schools in pest animal and weed education.
Structure of the Regional Strategy

The Regional Strategy is built from a bottom up approach of the collective local council, industry and other agency individual pest management actions and ensures alignment by ‘top-down’ development of a regional vision, goals and objectives (refer Figure 3).

The Regional Strategy forms linkages with the pest management planning processes by State Government agencies and other major stakeholders and is a basis for cooperation amongst neighbouring councils. This is facilitated by the attendance of stakeholders at Local Government Pest Management Advisory Committee/Natural Asset Management Advisory Committee meetings, the regional Natural Asset Management Advisory Committee (NAMAC) and attendance by council representatives at the Far North Queensland Pest Advisory Forum.

Figure 10 Structure of Regional Strategy and its relationship with individual Action Plans

Review and evaluation process

Progress on the delivery of the Regional Pest Management Strategy will be reviewed annually as part of the core business of the FNQ Natural Asset Management Advisory Committee.

A new plan will begin to be developed three months prior to 30 June 2015.
Goals

The FNQ pest management strategy 2008 – 2013 identifies the following Goals, Objectives and Actions to realise its vision. The table below is an example of how the Goals, Objectives, Actions and Responsibility is presented in the Regional Strategy.

Example

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategic action</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal:</strong> GOALS ALLOW ESTABLISHMENT OF TIME TARGETED OBJECTIVES AND ENSURE REGIONAL PARTNERS ARE CLEARLY AWARE OF WHAT IS EXPECTED FROM THEM, IF AN OBJECTIVE IS TO BE ACHIEVED.</td>
<td>A STRATEGIC ACTION IS SOMETHING DONE OUT OF A WANT OR NEED TO ACHIEVE AN OBJECTIVE</td>
<td>RESPONSIBILITY MEANS THE DUTY OF CARE THAT BINDS LAND MANAGERS TO THE COURSES OF ACTIONS AS IDENTIFIED BY THE REGIONAL STRATEGY</td>
</tr>
<tr>
<td><strong>Objective</strong></td>
<td><strong>Strategic action</strong></td>
<td><strong>FNQROC</strong> Including its Member Councils</td>
</tr>
<tr>
<td>0.1</td>
<td>0.1.1</td>
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<tr>
<td>0.3</td>
<td>0.3.1</td>
<td></td>
</tr>
</tbody>
</table>

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7 A Strategic Action may contribute to the achievement of a number of objectives. In the Regional Strategy the Action is identified only once, with the most relevant objective.

8 ‘All’ includes, but is not limited to, the following land managers: QPW, Sunwater, Ergon Energy, Powerlink, Agricultural Industry, Queensland Rail, AQIS and Traditional Owners.
Goal 1: All stakeholders have awareness, capacity, ownership, and commitment to their roles and responsibilities.

Strengthening public awareness and knowledge of pests leads to an increased capacity and willingness of individuals to take responsibility and subsequent action. This includes the ability to recognise new pests so that outbreaks can be detected and managed early and therefore be instrumental in the prevention of future problems.

The Regional Strategy ensures that local council personnel are familiar with alert lists and, in particular, pest plant identification and reporting protocols. This goal ensures the wider community is informed as to the risks posed by pests, and becomes more adept at their identification and development of solutions to manage.

A long-term commitment from the whole community is essential for effective pest management. It is well recognised by local government representatives and Biosecurity Queensland personnel (particularly those involved in the Tropical Weeds Eradication Programs), that control of priority pests can only be achieved through a medium to long-term commitment with resources to match.

In addition it is an ever-increasing obligation that persons must take responsibility for their impacts on others and on the environment.

Enforcement measures that are set in legislation can help to ensure that individuals fulfil their duty of care. In most instances enforcement and compliance is a measure applied as a last resort after communication and negotiations have failed. While individual Local Governments have different approaches to enforcement, there may be opportunity for agreement on consistent application of measures within the regional planning context.
**Goal 1:** All stakeholders have awareness, capacity, ownership, and commitment to their roles and responsibilities.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategic action</th>
<th>Responsibility</th>
</tr>
</thead>
</table>
| 1.1 Relevant information, tools and knowledge is available to meet the needs of interest groups, e.g. cane farmers to urban gardeners. | 1.1.1 Encourage community to identify environment damage or obvious productivity gains for development of local awareness materials  
1.1.2 Issue targeted pest alerts and conduct identification workshops for early detection  
1.1.3 Mapping and sharing and regional pest and management data is made available to manager and the community | FNQROC Including its Member Councils  
Biosecurity including HQ, LPOS and EO  
NRM Groups Including managers & Coordinators  
All Including all other regional land managers |
| 1.2 Community is aware of the principles of landscape management and are a part of the solution | 1.2.1 Encourage communities to identify local landscape values  
1.2.2 Utilise broad scale systems to disseminate information to land managers, e.g. incorporating in rates notices and industry letters | Yes  
Yes  
Yes  
Yes  
Yes |
| 1.3 Regional partners and individual land managers understand their roles and responsibilities | 1.3.1 Develop more sophisticated marketing strategies to enable partners to readily identify responsibilities  
1.3.2 Maintain ‘weed watch’ program and encourage stakeholder involvement  
1.3.3 Develop regional approach to compliance with legislation and investigate constructive means to implement enforcement programs. | Yes  
Yes  
Yes  
Yes  
Yes |
| 1.4 The principles of landscape management are taught alongside demonstrating management actions | 1.4.1 Encourage stakeholders to participate, e.g. attend regional forums, local workshops and pest advisory committee meetings and utilise weed buster week  
1.4.2 Develop learning programs for dissemination through schools and local media | Yes  
Yes  
Yes  
Yes |

Yes
Goal 2: Prevention and early intervention is recognised as a high priority strategy and is supported by effective action by all stakeholders.

The adage that “prevention is better than cure” holds true with respect to pest introductions. Preventing their entry into Australia and to the Queensland is largely a Biosecurity responsibility that lies beyond the role of local councils and resides with agencies of the Commonwealth such as AQIS and with the State of Queensland respectively. However, preventing the transport of pests or their reproductive parts through human activities or movement of livestock, limits their invasion capability within the region or parts thereof.

It is very well established that early detection of pests and intervention is the most effective approach to control. That is, the best value-for-effort/cost-efficiency within a weed control program is achieved since eradication prevents further expenditure on control and involves the least environmental impact (Braithwaite and Timmins, 1999; Carter, 2000; Goodland, et al., 1998; Groves, 1999). Eradication, however, is the exception rather than the rule (Groves and Panetta, 2002) and it is argued that it is important to evaluate the feasibility of eradication prior to expending great effort without being able to achieve the expected outcome. This Regional Strategy recognises the distinction between the aims of control and eradication together with the effectiveness of acting early to prevent future issues.

The Regional Strategy prioritises actions that ensure weed spread is reduced through a preventative approach. The planning area has four major road corridors enabling vehicles to transport weeds into the region, including the Bruce Highway, Peninsula Development Road, Kennedy Highway and Burke Development Road. These and other popular transport routes allow vehicles to become vectors for weed spread within the FNQROC member council area. Such corridors require ongoing monitoring for new incursions and placement of clean down facilities and signage to intercept weed material before it leaves the major pathways.
**GOAL 2:** Prevention and early intervention is recognised as a high priority strategy and is supported by effective action by all stakeholders

<table>
<thead>
<tr>
<th>Objective</th>
<th>Strategic action</th>
<th>FNQROC Including its Member Councils</th>
<th>Biosecurity including HQ, LPOS and EO</th>
<th>NRM Groups Including managers &amp; Coordinators</th>
<th>All Including all other regional land managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 Identify and encourage lead agencies to meet their responsibility to reduce risk of new introductions to the region</td>
<td>2.1.1 Ground level working groups established or maintained – could base on Fire Management Groups Model</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>2.1.2 Enforce land holder compliance as required</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2.2 The region identify its priorities and responsibilities to manage new pest introductions</td>
<td>2.2.1 Information on weed spread prevention, and responsibilities made readily accessible to the community</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>2.2.2 Effective coordinated effort on use of clean downs tools, e.g. Clean down facilities, brushes and appropriate vehicle tray design</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.3 Region rapidly respond appropriately to prioritised actions</td>
<td>2.3.1 All new infestations of Category 1 pests have plans developed and implemented within 3 months; Expert ‘swat’ teams identified, e.g. CVA Biodiversity Management Team</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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<tr>
<td></td>
<td>2.3.2 Regional funding utilised for rapid response to new incursions</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2.4 Raised use of prioritisation tools given to preventative actions</td>
<td>2.4.1 Improve and expand on mapping systems and data sharing across agencies</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.4.2 Utilise containment lines</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.4.3 Landscapes prioritised using appropriate and practical tools</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>2.5 Targeted research on control</td>
<td>2.5.1 Future risks identified through research</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2.5.2 Lobby for research that target priorities</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tbody>
</table>
Goal 3: Strong partnerships support collective actions and consistency in funding.

Partnership arrangements between land managers, communities, industries, and governments start with the sharing of knowledge and resources. It is recognised by the region as the basic principle that has seen formation of the NAMAC and the Pest Advisory Forum. It also underpins the formulation of every individual local government pest management committees since each was formulated in a process involving a range of stakeholder groups.

The Regional Strategy has been formulated to commit local governments and their partners to integrate pest management efforts within the FNQROC area, and to achieve the necessary commitment of resources to pursue appropriate pest management outcomes regionally and locally.

The control of introduced pest plants and animals is often too great a problem to be addressed simply by applying locally available resources, yet the benefits of instigating control are clearly in the public interest. Moreover effective pest management will require a greater input of effort and financial resources by many sectors of the community (including agencies and individual land managers). However this is one area where, unless there is coordinated effort across the community, there is substantial scope for expending substantial resources with little long-term public benefit.

The Regional Strategy compliments funding providers’ desire to support pest animal and weed management activities that demonstrate:

- Involvement of a wide range of stakeholders, and is supported by sound science and measurable objectives;
- Best practice examples for the community (e.g. assessment of density versus damage relationships);
- Encompass extension activities, which promote the objectives and principles of best practice pest management, and are applicable at local, regional and larger scales;
- Development of more efficacious, cost-effective and environmental/humane management; and
- Risk assessment/management and incursion management strategies to avoid the widespread establishment of new pests

The Regional Strategy focus is to support funding opportunities which are likely to have a direct link to improved weed and pest management outcomes at the property level.

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**Goal 3:** Strong partnerships support collective actions and consistency in funding.

<table>
<thead>
<tr>
<th>Objective</th>
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<th>Responsibility</th>
</tr>
</thead>
</table>
| **3.1** Seven local councils have common targets, action plans, information | 3.1.1 Pre-budget regional/local action plans | FNQROC Including its Member Councils
3.1.2 Facilitate the dissemination of information that contributes to improved capacity | Biosecurity including HQ, LPOS and EO
3.1.3 Council progress NRM function across all departments, e.g. WHS. | NRM Groups Including managers & Coordinators | All Including all other regional land managers |
| | Yes | Yes | Yes | Yes | Yes |
| **3.2** Further develop partnership systems and supports | 3.2.1 Employ a regionally based coordinator | Yes | Yes | Yes | Yes |
| | 3.2.2 Operate resources across tenure e.g. nil tenure approach programs | Yes | Yes | Yes | Yes |
| | 3.2.3 Develop a regional vertebrate pest working group | Yes | Yes | Yes | Yes |
| | 3.2.4 Develop a regional landscape repair and resilience working group | Yes | Yes | Yes | Yes |
| **3.3** All land manager agencies across all land tenures recognise and act on regional priorities and support by appropriate resources | 3.3.1 Collective investment in technology and commit to sharing resources data | Yes | Yes | Yes | Yes |
| | 3.3.2 Shift to proactive documented agreement, priorities that caters to diverse stakeholder objectives | Yes | Yes | Yes | Yes |
| | 3.3.3 Lobby and strike agreement to ensure sleeper weeds are identified and actioned for management | Yes | Yes | Yes | Yes |
| **3.4** Internal systems and structures similar | 3.4.1 Coordinators facilitate planning and operations pests management | Yes | Yes | Yes |
| | 3.4.2 New pest introductions mapped and data sent to regional data base | Yes | Yes | Yes | Yes |
| **3.5** To demonstrate a strong case for long term consistent funding | 3.5.1 Develop funding argument, e.g. what will it cost to maintain natural asset | Yes | Yes | Yes |
| | 3.5.2 Align state and FNQROC priorities before funding opportunities | Yes | Yes | Yes | Yes |
Goal 4: The management of pests across landscapes is guided by cost benefit frameworks

Research into weed and pest animal behaviour, risk and control is a matter that lies primarily beyond the responsibility and resources of Local Government. This is provided for by State and National instrumentalities, several of which (e.g. research centres at South Johnstone, Charters Towers, and Sherwood) are dedicated exclusively to pest research and others such as CSIRO engage in not only the physiological aspects of weed and pest animal management but the social sciences as well.

Applied research ensures efficient and cost-effective management of pest animals and weeds, with least disruption to ecological processes. This reinforces the resilience of natural and productive systems. Efficient and non-invasive weed control requires a high level of scientific understanding that is obtained through research. This can, however, be a two-way process with local experience of pest control informing efforts elsewhere.

Often Local Government pest management personnel actively collaborate with officers from these organisations to engage in weed and pest animal control research. Within the regional NRM arrangements, Local Government will continue to directly influence and support research into pest control priorities. In this regard, research considerations are included within the Regional Strategy.

Cost benefit frameworks must incorporate proven research to ensure prioritisation tools are adopted by decision makers. The Regional Strategy identifies long-term planning and resourcing and supports programs of management that measure change in pest abundance and subsequent benefits. Ad hoc landscape maintenance will not deliver long term changes in pest density so this should only be adopted if landscapes are already resilient to future pest incursions.
**Goal 4:** The management of pests across landscapes is guided by cost benefit frameworks

<table>
<thead>
<tr>
<th>Objective</th>
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</tr>
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<tbody>
<tr>
<td><strong>4.1 Adaptive management - system learning’s utilised</strong>&lt;br&gt;4.1.1 Develop Sub-catchment/local based plans and implement local actions with a mix of regulation and incentives</td>
<td>Yes</td>
<td>FNQROC Including its Member Councils, Biosecurity including HQ, LPOS and EO, NRM Groups Including managers &amp; Coordinators, All Including all other regional land managers</td>
</tr>
<tr>
<td><strong>4.2 Rapid sharing of learned practices</strong>&lt;br&gt;4.2.1 Develop a prioritisation cost benefit analysis toolbox, available for resource allocation – use at regional scale, or council/catchment scale</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>4.3 Coordinate and integrate priorities across landscapes</strong>&lt;br&gt;4.3.1 Create senior operations NRM group e.g. FNQROC Natural Asset Management Advisory Committee; state land pest management advisory group&lt;br&gt;4.3.2 Regularly inspect high risk corridors to minimise pest spread&lt;br&gt;4.3.3 Develop and adopt a regional weed risk assessment and prioritisation process&lt;br&gt;4.3.4 Develop and adopt regional management plans for priority species (excluding WONS and Class 1’s)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>4.4 Build systems to support research and management alignment</strong>&lt;br&gt;4.4.1 Align state and FNQROC priorities before budget</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>4.5 Embed principles of NRM in all stakeholder groups</strong>&lt;br&gt;4.5.1 Generate political will by publicly agreeing on priorities to develop funding arguments</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td><strong>4.6 Prioritise and support use of decision support tools to decision makers</strong>&lt;br&gt;4.6.1 Build better decision support tools for cost/benefit analysis and prioritisation</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
References Cited and Notes


Braysher, M and Saunders G. Pest Plan Tool Kit – A guide to setting priorities and developing a management plan for pest animals. Natural Heritage Trust, Canberra


Murphy, Helen & Cooperative Research Centre for Australian Weed Management. 2008 *Habitat management guide: rainforests: ecological principles for the strategic management of weeds in rainforest habitats / [author: Helen Murphy]* CRC for Australian Weed Management, Glen Osmond, S. Aust. :


<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Description</th>
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<tbody>
<tr>
<td>AQIS</td>
<td>Australian Quarantine Inspection Service</td>
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<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CVA</td>
<td>Conservation Volunteers Australia</td>
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<tr>
<td>DEEDI</td>
<td>Department of Employment, Economic Development and Innovation</td>
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<tr>
<td>EO</td>
<td>Extension Officer</td>
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<tr>
<td>FNQLGPPAC</td>
<td>Far North Queensland Local Government Pest Plan Advisory Committee</td>
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<tr>
<td>FNQ NAMAC</td>
<td>Far North Queensland Natural Asset Management Advisory Committee (formerly FNQLGPPAC)</td>
</tr>
<tr>
<td>FNQPAF</td>
<td>Far North Queensland Pest Advisory Forum</td>
</tr>
<tr>
<td>FNQROC</td>
<td>Far North Queensland Regional Organisation of Councils</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<tr>
<td>ICM</td>
<td>Integrated Catchment Management</td>
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<tr>
<td>LG</td>
<td>Local Government</td>
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<tr>
<td>LGA</td>
<td>Local Government Authority</td>
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<tr>
<td>LPO</td>
<td>Land Protection Officer</td>
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<tr>
<td>NAQS</td>
<td>Northern Australia Quarantine Strategy</td>
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<tr>
<td>NRM</td>
<td>Natural Resource Management</td>
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<td>PMP</td>
<td>Pest Management Plan</td>
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<td>QPW</td>
<td>Queensland Parks and Wildlife</td>
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<td>RNAMC</td>
<td>Regional Natural Asset Management Coordinator</td>
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<tr>
<td>WONS</td>
<td>Weeds of National Significance</td>
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</tbody>
</table>
‘To foster collaboration and resource sharing between councils and effectively advocate on agreed regional positions and priorities’