# BURKE SHIRE
## LOCAL GOVERNMENT AREA

# PEST MANAGEMENT PLAN 2011-2015

# Contents

# Executive Summary

The *Land Protection (Pest and Stock Route Management) Act 2002* sets out the legislative requirements for the management of weeds and pest animals and stock routes throughout Queensland. The Act specifically requires local governments to develop, adopt and implement local area Pest Management Plans as part of an integrated planning framework for managing pest plants and animals across the state. The general principles of planning, prevention, and partnership underpin Local Government Pest Management Plans with desired outcomes linked to objectives, actions and evaluation. The principles of pest management set out in the Act have guided the preparation and review of the pest management plan and the desired outcomes under the Strategic Program.

The Burke Shire local government area pest management plan has been developed in accordance with the *Land Protection (Pest and Stock Route Management) Act 2002* for the benefit of the entire community. The expertise of stakeholders (including representatives of local and state government agencies, industry groups, environmental and other community groups, and private landholders) has been drawn on in planning for cooperative management of pests on all land within the shire boundaries.

The key objectives of the plan are to:

- improve the use of the resources and expertise available for managing pests within the Shire;
- reduce the economic, environmental and social impacts of pests.

This Plan supersedes the Burke Shire Local Government Area Pest Management Plan 2007-2010.

# Part A: Introduction and Background

## 1. Introduction

The Burke Shire was declared on 31 January 1885. It is located in north west Queensland at the bottom of the Gulf of Carpentaria, covers an area of 41,802 square kilometres and has a population of 550. The main economic activities in the Burke Shire are grazing, fishing, mining and tourism. There are two main communities:- Burketown (population 200) and Gregory (population 50). The balance of the Shire is primarily made up of pastoral properties. Within the Shire, but excluded from Council's management, is the Doomadgee Aboriginal Community Council which has a population of approximately 1,500.

The Shire is bounded to the west by the Northern territory, to the south by Mount Isa City, to the south east by Cloncurry Shire, to the east by Carpentaria Shire and to the north by the Gulf of Carpentaria. The Shire area includes a number of significant river catchments, including the Leichhardt, Nicholson and Gregory Rivers.

Pest plants and animals have been identified in the Shire since the late 1800s. Most parts of the Shire are remote making pest incursions less likely to be noticed until they are well established. This Pest Management Plan seeks to comply with Section 25 of the *Land Protection (Pest and Stock Route Management) Act 2002* (whereby Local Governments are required to have in place a Pest Management Plan for its area). In this plan the Council recognises its responsibility (jointly with other relevant State and Federal Government Departments) for directing and implementing pest management strategies for the Burke Shire.

It is expected that the ongoing development and implementation of a strategic approach to pest management will enable greater opportunity for accessing funding, better usage of limited funds to manage pests, and clarification of the roles and responsibilities of participants in pest management.
The plan addresses the management of exotic species declared under the three declaration classes identified by the Act and other species identified as having significant local impacts.

The proposed outcomes for the Burke Shire Pest Management Plan include:-
1. Reduction of noxious plants and pest animals within the Burke Shire and neighbouring boundaries.
2. Goals to be set to and practices reviewed to ensure the most suitable means of pest control are employed.
3. To work in conjunction with all interested parties in the means by which pest control can be better achieved for Burke Shire and neighbouring properties.
4. To develop and update an annual assessment on all pests and educate landowners of the best control methods.
5. To enhance public awareness and to promote pest management through media outlets, rural shows and public events and information brochures depending on finances available.
6. Lobby for resources (finance, equipment and labour) to implement the plan effectively.
7. Where a benefit is identified, apply to have weeds declared.

### 1.1 Purpose

The Burke Shire local government area pest management plan has been prepared to establish and promote the cooperative management of the impacts of weeds and pest animals within the Burke Shire Council local government area (the shire).

### 1.2 Commencement and duration

The plan is a four-year plan, from 2011 to 2015. The draft plan was tabled for approval by the Burke Shire Council on 21st September 2011. The plan will remain in force until 2015, or until such time as a review establishes that this plan be extended, amended or revoked.

## 2. Statutory and planning context

## 2.1 Legislative framework

The *Land Protection (Pest and Stock Route Management) Act 2002* (the Act) covers 'the management of particular pests on land'. The Act specifically requires that Burke Shire Council develop, adopt and implement this plan as part of an integrated framework for managing weeds and pest animals across Queensland. This draft plan has been prepared in consultation with state government agencies and other stakeholders within the shire and adjoining local government areas.

Part B of the plan sets out the strategic program identifying desired outcomes and the objectives and actions for achieving these outcomes together with measures of success. Part C sets out the four-year program for high priority weeds and pest animals identified for Burke Shire Council. The Act empowers Burke Shire Council to exercise the relevant enforcement provisions.

## 2.2 Strategic links to other legislation and planning processes

In accordance with the pest management principles of planning and integration, it is important that the plan integrates with other local government, regional and state plans. Relevant plans include:

**Gulf Regional Development Plan**
Endorsed in 1998, the Gulf Regional Development Plan (GRDP) identifies the importance of a regional approach to pest management. These plans provide the basis for the development of locally or regionally relevant state agency implementation plans which assist in the management of declared pests on state-controlled land. The GRDP is overdue for review.

**Regional Pest Management Plans**
Ten cross-local government regional pest management groups are operating throughout Queensland, with boundaries closely aligned to regional NRM boundaries. Preparation of regional pest management plans are not a statutory requirement but do provide a communication forum, standardise activities, and enable the sharing of resources.

The Burke Shire Pest Management Officer regularly attends meetings of the Gulf Catchments Pest Taskforce which comprises the local government areas of Mount Isa, Cloncurry, McKinlay, Flinders, Richmond, Carpentaria, Croydon and Burke. These regional meetings put in place strategies and objectives to address the current and emerging pest problems over this large area of north-west Queensland.

**Burke Shire Council Corporate Plan**
A requirement under the *Local Government Act 1993,* the Corporate Plan sets out Council's vision for the community and how it intends to achieve that vision. Council's Corporate Plan states that Council will continue appropriate control measures for dealing with weeds and pest animals and continue implementation of the Burke Shire Area Pest Management Plan.

**Burke Shire Planning Scheme**
The Burke Shire Planning Scheme was prepared under the *Integrated Planning Act 1997*. The Planning Scheme outlines desired development and environmental outcomes, allocates land for different uses, and identifies the type of development and corresponding level of assessment.

**Stock Route Network (SRN) Management Plan**
The Act requires local governments to either prepare plans for the management of the SRN within their area or undertake planning for pest management on stock routes under the local government area pest management plan. Burke Shire Council has no active stock routes within it's shire.

**Property Resource Management Plans**
A number of landholders have voluntarily prepared a property resource management plan, for purposes including:

- Improving business and/or natural resource management
- Gaining funding from government or community programs
- Complying with regulatory requirements, for example, to obtain vegetation clearing approval or to access water resources.

Landholders including pest actions in property resource management plans can make a direct and valuable contribution to the management of priority pests in the local government area. Guidance for these property-level plans is increasingly taken from higher level plans, such as regional NRM plans. As leases are renewed properties are required to develop Property Management Plans taking into account all relevant higher level plan arrangements. The Burke Shire Area Pest Management Plan will be available for landholders to use as a basis for developing individual property plans.

## 2.3 Pest management overview

Weeds and pest animals cost Queensland more than $710 million every year in lost production and control costs. They also cause degradation of natural resources (including vegetation), threaten biodiversity values and interfere with human health and recreational activities. In the Burke Shire damage to the natural environment caused by pest plants and animals have not reached the limits of their invasive capacities.
Despite the relatively low impact of pests in this local government area, Burke Shire Council realises the importance of undertaking pest management planning and implementation. This plan identifies current and potential pest species and includes well-planned strategies for their control, containment and eradication within the shire.

## 3. Stakeholder responsibilities

Key stakeholder responsibilities for implementing this plan are outlined below.

| **Stakeholders** | **Key roles and responsibilities** | | | |
|---|---|---|---|---|
| | **Class 1 Pests** | **Class 2 Pests** | **Class 3 Pests** | **Further actions** |
| Burke Shire Council (BSC) | Surveillance, early detection, destruction of infestations, local planning, mapping and raising awareness | Compliance, surveillance, local planning, mapping and raising awareness | Local planning, mapping and raising awareness | Lead declaration under Local Law of locally significant weeds and pest animals<br>Contribute financially through the annual payment system for pest control and research services<br>Best practice environmental management to prevent spread of weeds |
| Biosecurity Queensland / Department of Employment, Economic Development and Innovation (BQ) | Early detection, destruction of infestations, compliance, statewide planning, mapping, coordination, awareness raising and research | Supply 1080 to Council and administer, monitor, record and enforce proper use of 1080 | Compliance, statewide planning, awareness raising and research | Research control techniques<br>Support local government planning, extension and education services |
| Department of Environment and Resource Management (DERM) | Exclude high priority species | Early detection, eradication of isolated, strategic infestations/populations | Early detection, eradication of isolated, strategic infestations/populations | Ensure the conservation of biodiversity, monitor and regulate environmental impact of weed and pest animal management |
| Department of Transport and Main Roads (DTMR) | Early detection, destruction of infestations | Destruction and control of infestations | Weed control in environmentally significant areas | Best practice environmental management to prevent spread of weeds |
| Department of Health (QH) | | | | Lead role in maintaining public health and safety in issues associated with poisons |
| Southern Gulf Catchments (SGC) | Assist with the development and implementation of eradication programs | Contribute to regional containment and/or management programs in partnership with relevant stakeholders | Support funding proposals for control programs | Map infestations and information/licensing |
| Landholders (LH) (including state landholding agencies) | Early detection, destruction of infestations | Destruction and control of infestations | Weed control in environmentally significant areas | Map infestations and inform BSC, BQ & SGRMG |

## 4. Development, implementation and review

This plan is the second plan prepared by Burke Shire Council under the Act. The first plan was prepared in 2007 and endorsed by the Minister in 2007. In accordance with section 31 of the Act, a local government area pest management plan has effect for a period of no more than four years. The 2007-2010 plan has been reviewed resulting in the development of a draft revised plan. This process has provided another opportunity for the local community and other stakeholders to have input into determining strategic directions and priority pest programs for the next four years. Stakeholder and community consultation on the draft plan has involved:

- Workshop of local pest advisory group (BSC, landholders, BQ, other relevant state agencies, and interested persons) to provide feedback on current plan and input into draft plan
- Public notification and display of draft plan for community feedback and comment

***The draft plan was submitted to the Minister for Primary Industries, Fisheries and Rural and Regional Queensland on (insert date). The Minister was satisfied that the plan met the requirements of the Act, and on (insert date) advised the Council to adopt it. In keeping with sections 30(2) and 32 of the Act, the Council has adopted the plan for implementation. The plan is available for public inspection on Burke Shire Council's website and at the Burke Shire Council Administration Centre.***

***The plan will remain current until 30th June 2015. Annual action plans will be prepared each financial year to detail key actions, activities and programs for that year. Annual action plans will be reviewed annually, on or before 1 April, to monitor the effectiveness of the plan and give direction to Council's annual business planning cycle. Monitoring and evaluation processes (including the measurement of actions against stated success criteria) are in place to determine the effectiveness of the plan. Any amendments to the plan will require its re-submission to the Minister for approval.***

# PART B: Strategic Program

This part of the plan sets out strategic programs addressing pest management generally in the Burke Shire Council local government area. The programs will be implemented over the four-year life of the plan and are aligned with the desired outcome set out in the Queensland weeds and pest animals strategies.

## 5. Desired outcomes, strategic objectives and actions

**DESIRED OUTCOME 1**

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

**Principle: Public awareness**
Public awareness and knowledge of pests must be raised to increase the capacity and willingness of individuals to manage pests.

**Issue 1: Awareness, Education, Training, and Availability of Information**

| | | |
|---|---|---|
| **Strategic Objective: 1**<br>To increase community, industry, agribusiness and government awareness of pests and their impacts. | **Success Criteria: 1**<br>The degree to which public awareness programs close gaps in public knowledge | |

| Strategic actions | Success indicators | Actioned by: |
|---|---|---|
| • Raise public awareness by publishing fact sheets about pests declared under local laws on the Burke Shire website and via community email forum & information centre. | • Published Fact sheets distributed for declared species | BSC |
| • Distributing BQ pest fact sheets on declared pest animals and plants on the Burke Shire website and via community email forum & information centre. | • Pest fact sheets distributed and displayed in Council Administration Building, Library and Visitor Information Centre & on website | BSC, BQ |
| • Organising awareness-raising activities (eg participation in Weedbuster Week and presentations and field days for schools and stakeholders) | • Awareness raising activities organized with local Communities and School Children for both weeds and pest animals | BSC,BQ, SGC |
| • Erect pest awareness signs at strategic sites on Gregory & Flinders Rivers and other strategic camping sites | • Pest awareness signs obtained/ erected and maintained for Tourist Information | BSC,SGC,LH |
| • Develop and implement a pest awareness program tailored at local stakeholders highlighting key issues including:<br>- roles and responsibilities of stakeholders<br>- the impacts of pests on people<br>- changes in practice towards integrated pest management<br>- the potential for introduced plants (including garden plants) to become weeds<br>- preventing spread of new pests by humans<br>- new and revised local weed and pest animal incentives ie Wild dog bounty and seek funding for chemical if applicable and available<br>- improving communication between government, industry, community groups and landholders about pest management, ie field days organized with SGC and DEEDI<br>- linking pest management with other local government communications plans | • Pest awareness programs developed<br>• Actions linked to other local government communication plans<br>• Burke Shire Stakeholder groups included in communication networks<br>• Stakeholders and encouraged to Cooperative on pest management activities and in pest programs.<br>• Information sheet mailed out with annual rates notices and available on website and through community email forum. | BSC,BQ<br>BSC<br>BSC stakeholders<br>BSC, SGC, BQ, stakeholders<br>BSC,SGC, BQ |

| **Strategic Objective: 2** | **Success Criteria: 2** | |
|---|---|---|
| To enhance stakeholder knowledge of pest impacts and improve skills in pest management. | The degree to which individuals and stakeholders pursue education and training in pest management | |

| Strategic actions | Success indicators | Actioned by: |
|---|---|---|
| • Making the Burke Shire Local Government Area Pest Management Plan available to the community for viewing and comment on the website and through community email forum & at the administration building | • Burke Shire Local Government Area Pest Management Plan is available for viewing on website & at administration office | BSC |
| | • statutory maps are available for viewing at Burke Shire Office | BSC, BQ |
| • Accredited training of BSC officers and maintained accreditation | • BSC Pest Management Officer holds necessary accreditations | BSC |
| • BSC and stakeholders participation in relevant local government training workshops, conferences and forums in relation to pest identification and best management practices. | • GCPTF workshops/meetings attended | BSC ,BQ |
| | • Training attended annually | BSC |
| • Making printed weed and pest animal information available to stakeholders through commercial business. | • Pest factsheets and information packages distributed through Library, Tourist information centres, motels, caravan parks, petrol stations, shops, and other educational institutions | BSC, BQ |
| • Using media such as newsletter, radio and websites to disseminate pest information to the community | | |
| • Making other maps available to the community (eg pest distribution, containment lines, environmentally significant areas and survey programs) | • Information & articles in Burke Shire newsletter and website | BSC |
| | • Number of non-statutory maps made available | BSC,BQ , SGC |

| **Strategic objective: 3**<br>To ensure information about weeds and pest animals is available to all stakeholders | **Success criteria: 3**<br>The extent to which appropriate information is available to stakeholders | |
|---|---|---|
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Making the Burke Shire local government area pest management plan available to the community for viewing and comment | • PMP available on Council website, copies available to view at Council Administration Centre, Burketown Visitor Information Centre and Council library. Copies available to purchase**.** | BSC |
| • District pest maps available to the community | • Number of inquiries for district maps | BSC |
| • Making printed weed and pest animal information widely available to stakeholders | • Venues where pest factsheets and information is available to stakeholders and shire residents | BSC,BQ |
| • Using media to disseminate pest information to the community | • Articles published in Councils newsletter and other media outlets | BSC |
| • Making mapping available to the community (eg pest species distribution, containment lines, environmentally significant areas and survey plans) Directing enquiries to relevant websites with pest information | • Number enquiries for pest mapping | BSC,BQ SGC stakeholders |

**DESIRED OUTCOME 2**

**All stakeholders are committed to and undertake coordinated management of weeds and pest animals**

**Principles: Commitment and Consultation and Partnership**

1. Effective pest management requires a long-term commitment to pest management by the community, industry groups and government agencies.
2. Consultation and partnership arrangements between local communities, industry groups, state government

agencies and local governments must be established to achieve a collaborative approach to pest management.

**Issue:** Compliance and enforcement

| **Strategic objective 1:** To ensure compliance with the Act in weed and pest animal management | **Success criteria 1:** The extent to which stakeholders comply with and enforce the Act | |
|---|---|---|
| **Strategic Actions** | **Success indicators** | **Actioned by:** |
| • Create a register of enforcement activities in Burke Shire | • Register is created and enforcement activities are documented | BSC |
| • With stakeholders, develop and implement a compliance program (incentives, warnings, revocation and suspension of rights) with additional communication and education functions | • Burke Shire stakeholders supporting the compliance program and the percentage of compliance issues resolved without the need for enforcement | BSC |
| • Create a register of authorised local government compliance officers | • Authorised officers, local government delegations and compliance actions included in register | BSC |
| • Implement, and refine where necessary, BQ operational procedures for matters such as:<br>- seizures<br>- quarantine confiscation and destruction of declared pests<br>- entering land<br>- vehicles and property<br>- recovering costs<br>- surveys and inspections | • BQ procedures implemented, documented and communicated to stakeholders | BSC, BQ |
| • Network with local government compliance officers statewide | • Council's compliance officer participates in statewide networking | BSC |
| • Offer compliance training to local government officers and other stakeholders | • Council officers who have undertaken or maintained compliance training | BSC |
| **Strategic objective 2:** To establish long-term stakeholder commitment to weed and pest animal management | **Success criteria 2:** The proportion of stakeholders working in partnership on long-term pest management | |
| **Strategic actions** | **Success indicators** | |
| • Establish a working group of key stakeholders to develop, implement and review the Burke Shire Area Pest Management Plan and annual action plans | • Percentage of Burke Shire stakeholders represented on the working group | BSC & stakeholders |
| • Establish partnerships for local weed and pest management | • New partnerships established and maintained | BSC, stakeholders |
| • Establish, through consultation, roles and responsibilities for each stakeholder, including contributions to annual action programs | • Key Burke Shire stakeholders actively contributing to PMP actions | BSC, stakeholders |
| • Include resource allocations for pest management in annual action plans | • Burke Shire Project Plan to include resource allocations for pest management | BSC |

**DESIRED OUTCOME 3**

**Reliable information is available as a basis for decision making**

**Principle: Improvement**
Research about pests and regular monitoring and evaluation of pest control activities, are necessary to improve pest management practices.

**Issues:** Data collection and assessment; pest biology and impacts; community attitudes

| | | |
|---|---|---|
| **Strategic objective 1 :** To collect, use and make available data relevant to weed and pest animal management | **Success criteria 1:** The extent to which data is collected and used in pest management | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Map all Class 1 and priority Class 2 declared pests in Burke Shire optimistically | • Class 1 and priority Class 2 declared pests mapped. | BSC, BQ,SGC LH, stakeholders |
| • Contribute local pest data to the BQ Annual Pest Assessment (statewide mapping of all declared species) | • Species for which data is contributed | BSC, BQ, SGC |
| • Promote conformity in ways community groups and other stakeholders collect and use data | • Burke Shire Stakeholder groups collecting and using pest data | BSC,SGC LH, BQ stakeholders |
| • Facilitate information sharing between stakeholders (eg adjoining local government areas, SGC and other state agencies) | • Information is shared between stakeholders | BSC, stakeholders |
| • Collect and communicate information about pest control activities such as the use of chemicals and their outcome | • Good news case studies published in newsletters | BSC, SGC ,BQ |
| • Monitor and evaluate the effectiveness of control activities | • Pest control activities for which monitoring and evaluation data is recorded | BSC,BQ, SGC, LH, stakeholders |
| **Strategic objective 2:** To further the understanding of the biology, ecology and impacts of weeds and pest animals. | **Success criteria 2**: The level of stakeholder understanding of pest biology, ecology and impacts, including the costs of action and non-action. | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Consider pest behaviour (biology and ecology), pest impacts (economic, social and environmental) and pest control costs in the local declaration and prioritisation of pest species | • Priority pests determined with reference to available information on behaviour, impacts and control costs | BSC, stakeholders |
| • Determine the local impact of pests | • Priority pests for which local impact information is recorded | BSC, BQ, LH, stakeholders |
| • Contribute information to BQ for the quantification of state wide pest impacts on economic activities, natural ecosystems and human and animal health | • Information provided to BQ and its research, industry and extension partners | BSC, BQ, LH, SGC, stakeholders |
| **Strategic objective 3:** To further the understanding of community attitudes to weed and pest animal management. | **Success criteria 3:** The extent to which community attitudes to pest management are understood | |

| Strategic actions | Success indicators | Actioned by: |
|---|---|---|
| • Assist BQ in gathering information on community awareness and attitudes annually or as require | • Number of community attitudes surveys assisted with | BSC, BQ, SGC stakeholders |
| • Initiate local surveys of community awareness and attitudes towards pest management. Surveys can be via phone or at baiting days | • Information request from public & stakeholders relating to pest management resulting from surveys | BSC |
| • Link the findings of local pest management surveys with those of other local government attitudinal surveys | • Linkages to other local government surveys | BSC, other local governments |

**DESIRED OUTCOME 4**

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

**Principles: Planning and Integration**

1. Pest management planning must be consistent at local, regional, state and national levels to ensure resources target priorities for pest management are identified at each level
2. Pest management is an integral part of managing natural resources and agricultural systems

**Issues:** Planning, strategy management and coordination, resources, holistic management

| **Strategic objective 1 :** To create a planning framework for weed and pest management | **Success criteria 1:** The number of pest management plans at different levels incorporated into the planning framework | |
|---|---|---|
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Ensure consistency between the Burke Shire Area Pest Management Plan and related pest management plans eg Queensland Weeds Strategy; Queensland Pest Animal Strategy; Southern Gulf Regional Pest Management Plan; Property Pest Management Plans | • Number of related pest management plans featuring local pest management issues | BSC, SGC, LH, BQ, Stakeholders |
| • Assist development of landholder property pest management plans for high priority pest situations, and considering, for example – quarantine areas, containment areas, environmentally significant areas | • High priority pest situations with property pest management plans in shire | LH, BSC, SGC, BQ, stakeholders |
| • Encourage information sharing between stakeholders to ensure pest management programs are consistent with similar pest programs in neighbouring areas. | • Number of strategic & coordinated pest projects occurring | BSC, SGC, BQ, LH, stakeholder |
| • Include the large landholding state agencies in planning e.g. Parks & Wildlife | • State agencies with large local holdings participating in the PMP reviews | BSC, LH |
| • Share pest information with stakeholders involved in other relevant local planning e.g. Doomadgee Shire Council, Carpentaria Land Council | • Information shared with stakeholders annually. | BSC, stakeholders, Local governments |

| | | |
|---|---|---|
| **Strategic objective 2 :**<br>To implement, evaluate and review integrated weed and pest animal strategies | **Success criteria 2:**<br>The extent of coordination in implementing, evaluating and reviewing pest management plans | |
| **Strategic actions** | **Success indicators** | |
| • Review the annual action plan three months before the end of each financial year | • Annual action programs given timely review in April each year | BSC, stakeholders |
| • Complete each new Pest Management Plan six months before the expiry of its predecessor. | • Plan review and renewed prior to expiry | BSC, BQ, stakeholders |
| • Implement actions for priority weed and pest animal management | • Number of priority weed and pest animal actions implemented | BSC, Relevant stakeholder |
| • Seek cooperation from surrounding local governments and other stakeholders in implementing PMP's and annual action programs | • Surrounding local governments involved in cross-border pest management | BSC, SGC, Doomadgee, GCPTF |
| • Form a working group to implement & review the PMP | • Burke Shire stakeholders represented on the working group | BSC, Stakeholders |
| • Develop strategies for managing matters of conflict eg cultural heritage | • Matters of conflict identified and resolved | BSC, SGC |
| • Monitor and evaluate the implementation of the PMP | • Plan evaluations completed annually | BSC, stakeholders |
| **Strategic objective 3:**<br>To efficiently and adequately resource weed and pest animal management | **Success criteria 3:**<br>The number of pest management actions that are adequately resourced | |

| Strategic actions | Success indicators | |
|---|---|---|
| • Commit to adequately resourcing local pest management actions | • Local pest management actions adequately resourced | BSC |
| • Submit local government precepts (annual payments) to the Minister for services such as: plague pest control; research | • Precepts duly submitted to the Minister | BSC |
| • Allocate resources according to pest priorities | • Resources allocated according to pest priorities | BSC, SGC, BQ |
| • Seek funding & other resources for pest projects from e.g. volunteers; industry and private enterprise; Caring for Country; SGC; state agencies | • Value of resources obtained from non-local government sources<br>• Number of different funding sources approached & obtained | BSC, LH, SGC, BQ, stakeholders |
| • Encourage continuing allocation of resources to existing projects, such as: Strategic Weed Eradication and Education Program | • Continued resourcing and support of strategic weed programs | BSC, SGC, LH, BQ, stakeholders |
| • Share resources and knowledge with other stakeholders | • Cooperative projects implemented as necessary | All stakeholders |
| • Support DEEDI state wide services that are of benefit to local government such as research, extension, plaque pest control | • DEEDI projects supported in the Burke Shire | BQ, BSC |
| **Strategic objective 4 :** To integrate pest management planning with other government, property, community and industry planning | **Success criteria 4:** The extent to which pest management actions are integrated with planning at different levels | |
| **Strategic actions** | **Success indicators** | |
| • Ensure consistency between the Burke Shire LGAPMP and resource management and other relevant plans (Principle: Integration) eg Southern Gulf Regional Pest Management, catchment plans; conservation management plans; vegetation management plans; local government corporate plans; local government planning scheme, Burke Shire Community Plan | • All planning documents covering natural resource management issues target actions consistent across the region. | BSC, stakeholders |

**DESIRED OUTCOME 5**

**The introduction, establishment and spread of weeds and pest animals are prevented**

**Principles: Prevention and Public Awareness**

1. Preventative pest management is achieved by:
   - preventing the spread of pests and viable parts of pests, especially by human activity
   - early detection and intervention to control pests.
2. Public awareness and knowledge of pests must be raised to increase the capacity and willingness of individuals to manage pests.

**Issues:** Prevention, Early Detection and Eradication, Containment

| **Strategic objective 1:**<br>To prevent the introduction of new weeds and pest animals | **Success criteria 1:**<br>The extent to which the introduction of new pests in prevented | |
|---|---|---|
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Promote the use of weed hygiene declarations | • Burke Shire stakeholder groups using Weed Hygiene Declarations | BSC, BQ, All stakeholders |
| • Prevent the introduction of weeds along transport corridors eg by ensuring that road construction contracts include weed prevention conditions | • Transport corridors with weed prevention programs<br>• Number of road construction contracts that include 'best practice' condition for prevention of weed seed spread in environmental management plans | DTMR,BSC<br>DTMR,BSC |
| • Prioritise pest species for prevention of entry to the local government area by using published information e.g. distribution maps from pest species guidelines; local pest priorities; adjoining local government pest priorities; potential pest species distribution maps; Annual Pest Assessment maps | • Class 1 and new Class 2 pest species Prevented from entering Burke Shire | BSC,BQ, GCPTF, stakeholders |
| • Burke Shire Council to maintain machinery washdown facility for council use only; | • Ongoing maintenance of washdown facility for Council machinery only | BSC |
| • Actively seek funding and support for a public washdown facility | • Funding secured for washdown facility | BSC |
| • Promote general weed hygiene on properties | • Property Pest Management Plans and the use of weed hygiene declarations. | BSC, SGC, BQ, LH, all stakeholders |
| • Ensure weed prevention conditions are included in contracts e.g. telecommunications; amenities (pipelines); estate development | • Infrastructure development contracts that include weed prevention conditions | BSC, DTMR, stakeholders |
| • Promote suitable local alternatives to pest and potential pest species | • Retail outlets not selling invasive pest species | BSC, local businesses |
| • Investigate the ways that weeds and pest animals enter the local area | • Number of entry methods identified | BSC, stakeholders |
| **Strategic objective 2:**<br>To prevent the local establishment of new weeds & pest animals | **Success criteria 2:**<br>The extent to which the local establishment of new pests in prevented | |

| Strategic actions | Success indicators | |
|---|---|---|
| • Prioritise pest for early detection and eradication | • Number of Class 1 & Class 2 pest species targeted for eradication | BSC, BQ, SGC, GCPTF, stakeholders |
| • Implement and promote pest monitoring or survey programs (e.g. an annual survey of roadsides or other critical areas) | • Local government area covered by survey programs | BSC, SGC, BQ |
| • Assist the state government Rapid Response Program for handling new infestations of Class 1 pests | • Class 1 rapid response programs featuring stakeholder cooperation, and number of key stakeholder groups with roles in these programs | BSC, BQ, Stakeholders |
| • Develop a rapid response program for handling new infestations of Class 2 pests not common in the local area | • Class 2 incursions targeted by rapid response programs | BQ,BSC, stakeholders |
| • Use of emergency quarantine for Class 1, and where appropriate Class 2 pests | • Quarantine notices issued | BQ, BSC |
| • Establish a monitoring and identification network for weeds and plague pest animals (e.g. locusts, mice, field rats) | • Number of Plague pests reported | BSC, LH, GCPTF, stakeholders |
| **Strategic objective 3:** To minimize the spread of weeds and pest animals to new areas | **Success criteria 3:** The extent to which established pests are prevented from spreading | |
| **Strategic actions** | **Success indicators** | |
| • Target priority Class 2 pests for containment | • Number of Class 2 pests targeted for containment | BSC, SGC, BQ |
| • Contain local Class 2 pests in core infestation areas e.g Hymenachne | • No reports of spread of class 2 pests outside core infestation areas. | SGC, BSC |
| • Promote the eradication of small, isolated infestation | • Small isolated infestations eradicated | BSC, BQ, SGC, LH, stakeholders |

**DESIRED OUTCOME 6**

**Integrated systems for managing the impacts of established weeds and pest animals are developed and widely implemented**

**Principles: Best Practice, Improvement and Public Awareness**

1. Pest management must be based on ecologically and socially responsible pest management practices that protect the environment and the productive capacity of natural resources
2. Research about pests, and regular monitoring and evaluation of pest control activities, are necessary to improve pest management practices.
3. Effective pest management requires a long-term commitment to pest management by the community, industry groups and government entities.
4. Public awareness and knowledge of pests must be raised to increase the capacity and willingness of individuals to manage pests.

**Issues:** Adoption of Management Techniques, Population and Impact Management, Environmentally Significant Areas, Development of Management Practices, Incentives

| | | |
|---|---|---|
| **Strategic objective 1:**<br>To adopt and promote best practice in weed and pest animal management | **Success criteria 1:**<br>The extent to which best practice is adopted | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Adopt timely and effective integrated best practice management for priority pest species that considers: timing; integrated techniques; non-target damage; costs; prevention; animal welfare; workplace health & safety; monitoring; new research; operational procedures; chemical registration requirements | • Priority pest operations based on best practice | BSC, SGC, BQ, LH, stakeholders |
| • Distribute best practice publications to relevant stakeholders | • Best practice publications available through library, Visitor Information Centre, field days, property visits | BSC, BQ, SGC |
| • Prevent access to refuse sites by pest animals (e.g. feral pigs) | • Refuse sites fenced | BSC |
| • Contribute to developing potential productive uses of pests | • Pest species considered for productive uses | BSC, LH BQ |
| **Strategic objective 2:**<br>To reduce pest populations and impacts | **Success criteria 2:**<br>The extent to which the populations and impacts of established pests are reduced | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Coordinate plague pest animal management with stakeholders | • Complaints received about plague pests & reported | BSC,LH, BQ |
| • Coordinate impact reduction programs for established pest animals e.g. baiting; trapping | • Programs coordinated for established pests, and number of participating land managers | BSC, BQ, LH, stakeholders |
| • Distribute biological control agents | • Biological control agents distributed as identified and available | BQ, BSC |
| • Maintain problem animal reduction programs eg registering cats and dogs; fencing; refraining from feeding wildlife; constructing poultry enclosures; removing waste | • Problem animals reduced in Shire<br>• Complaints about problem animals resolved | BSC, LH,<br>BSC, LH |
| **Strategic objective 3:**<br>To protect environmentally significant areas from weeds | **Success criteria 3:**<br>The degree of protection afforded to environmentally significant areas by weed management programs | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Identify and prioritise environmentally significant areas and potential pest threats E.g. Harris Lakes | • Areas identified and prioritized for pest management<br>• Number of pest threats identified | BSC, LH, stakeholders<br>BSC, LH, stakeholders |
| • Encourage community & stakeholder involvement in monitoring and managing pests in environmentally significant areas | • No reports of pest incursion in environmentally significant areas | BSC, LH, stakeholders |

| | | |
|---|---|---|
| **Strategic objective 4:**<br>To develop new, and improve existing, weed and pest animal management practices | **Success criteria 4:**<br>The extent to which local pest management practices are developed and improved | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Identify inadequacies in existing pest management | • Improvements recommended and if possible implemented | BSC, BQ, stakeholders |
| • Identify areas for future research | • Any research needs identified | BSC, BQ, SGC ,stakeholders |
| • Contribute to developing local best practice | • New contributions to local best practice implemented | BSC, BQ, SGC, stakeholders |
| • Assist research projects | • Research projects assisted as identified | BSC, BQ, SGC |
| • Ensure the adaptability of pest management practices | • Adaptive management practices developed as identified | BSC, BQ, stakeholders |
| **Strategic objective 5:** To offer incentives to stakeholders for practicing pest management | **Success criteria 5:** The extent to which incentives enhance pest management | |
| **Strategic actions** | **Success indicators** | **Actioned by:** |
| • Revise or introduce suitable new weed and pest animal incentives | • Land managers using existing incentive programs | BSC,LH, stakeholders |
| • Assess the effectiveness of existing and potential incentives (and disincentives) for pest management e.g. barter programs and free herbicides | • Uptake of incentives in Burke Shire | BSC, stakeholders, SGC |

# Part C: Pest-specific management programs

This part of the plan sets out the four-year programs for declared and high priority environmental weeds and pest animals identified for the Burke Shire.

## 6. Overview of pest management priorities

A full listing of the classes of declared pests in Queensland is contained in Appendix 1.

In the preparation of this plan, Burke Shire Council undertook a prioritisation process for the management of species that are present in the shire and legislated for management under the Act, or are deemed to pose a significant local threat. These pests are summarised in the tables below.

The management of these species has assigned a **priority:** high, medium or low. The priority given to the management of a species is based upon threat, distribution and declaration status, in particular the:

- potential detrimental impact to the shire of not doing anything to control the pest
- beneficial impact of spending money now to control the pest (eg a weed is only present in very small numbers in the shire, meaning that for a small amount of money and effort the weed could be eradicated).

Based on the pest's biology, ecology and distribution, each pest plant and animal was rated according to its **strategic importance**: its potential threat to areas of high natural value or agricultural importance. The rating categories were:
Low
Medium
High
An **achievability** rating was then assigned to each pest as follows:

1 Could be eradicated from the Shire/specific area or not currently present
2 Could be significantly reduced in area (plants) or numbers (animals) in the shire/specific area
3 Could be contained/prevented from spreading (plants) or could prevent major/rapid increase in numbers (animals)
4 Could be managed effectively with an acceptable level of bio-control

For declared and high priority environmental weed and pest animal species, species-specific management programs have been prepared and are set out in section 7 of the plan.

**DECLARED PRIORITY WEEDS**

| Common name | Scientific name | Declaration | Priority |
|---|---|---|---|
| Rubber vine | *Cryptostegia grandiflora* | Class 2 | High |
| Chinee apple | *Ziziphus mauritiana* | Class 2 | Medium |
| Parthenium | *Parthenium hysterophorus* | Class 2/WONS | High |
| Mesquite | *Prosopis glandulosa, P. Pallida and P. vellutina* | Class 2/WONS | High |
| Bellyache Bush | *Jatropha gossypifolia* | Class 2 | High |
| Parkinsonia | *Parkinsonia aculeate* | Class 2/WONS | Medium |
| Prickly Acacia | *Acacia nilotica* | Class 2 | High |
| Giant Rat's Tail Grass | *Sporobolus africanus, S. pyramidalis, S. natalensis, S. Jaquemonti & S. fertilis* | Class 2 | High |

**NON-DECLARED PRIORITY WEEDS (ENVIRONMENTAL PESTS)**

| Common name | Scientific name | Declaration | Priority |
|---|---|---|---|
| | | | |
| Neem Tree | *Azadirachta indica* | Not declared | Low |
| Calotrope | *Calotropis procera* | Not declared | Medium |
| Noogoora Burr | *Xanthium pungens* | Not declared | Low |
| Grader Grass | *Themeda quadrialvis* | Not declared | Low |

**DECLARED PEST ANIMALS**

| Common name | Scientific name | Declaration | Priority |
|---|---|---|---|
| Dingo / Wild Dog | Canus familiaris dingo | Class 2 | High |
| Feral Pig | Sus scrofa | Class 2 | High |
| Feral Cat | Felis catus | Class 2 | Low |

# 7. Priority weed and pest animal programs

Species specific programs have been developed for weeds and pest animals identified in section 6 of this plan.

Each program:

- identifies the common and scientific names of the high priority weed of pest animal
- provides a description of the problem (ie the pest's biological characteristics, and potential and actual threats)
- describes the local distribution of the pest
- identifies the priority given to its management in Australia, Queensland, the region and adjacent local government areas (including state and local status)
- identifies objectives (eg prevention, eradication, containment)
- identifies operational actions (in relation to each action, identifies key stakeholder groups responsible for implementing those actions and when actions will be carried out)
- identifies measures of success and success indicators to assess the effectiveness of operational actions against the operational objectives.

# Pest Specific Strategies

## 1. RUBBER VINE (*Cryptostegia grandiflora*)

| | Achievability | Priority |
|---|---|---|
| | 3 | HIGH |

**Declaration Category – Plant 2**

**Description:**

Rubber Vine is a native of Madagascar and was introduced to Australia as an ornamental shrub in 1875. It is a vigorous climber with twining, whip-like shoots, which can grow unsupported as an untidy many-stemmed shrub 1-2 m high or scramble to a considerable height in trees. Leaves are dark-green and glossy, 6-10 cm long, 3-5cm wide and in opposite pairs.

Flowering: Large flowers with white to light purple petals in a funnel shape in mid-late summer, though flowering can occur at any time if sufficient moisture is available.

Dispersal: Seedpods are rigid and grow in pairs at the end of a short stalk March-May. The pods are 10-12 cm long and 3-4 cm wide, each containing up to 350 seeds. Each seed has a tuft of long white silky hairs, which enable easy dispersal by wind and water. Approximately 95% of the seed is viable. Seeds last no more than one year in the soil, however there is often a source of seed to blow back into weed-free or treated areas.

**Impact:** Environmental, Economic, Social

Rubber Vine first invades creeks and river systems where it smothers other vegetation to form dense impenetrable thickets. It then spreads over hillsides and through pastures. Rubber Vine has the potential to invade much of the Burke Shire, especially along waterways. Its impacts include:

- Invasion and replacement of native flora and wildlife habitat,
- Prevention of cattle accessing watering points along rivers and creeks
- Prevention of mustering, as cattle hide in thick infestations and are impossible to move
- Poisonous to stock
- Reducing access to fishing holes and camping areas

Distribution: Rubber vine prefers areas with a rainfall of 400 – 1,400 mm per year

Control methods: Control of rubber vine can be achieved by a number of methods alone or in combination depending on the situation and severity of the infestation (scattered, medium density or dense). See DNR's Rubber Vine Pest Fact for further information. All areas must be periodically checked and any regrowth treated.

1. Prevention (1 year's seeding = seven year's weeding)
2. Rust (*Maravalia cryptostegiae*) from Madagascar seems to be reducing spread rate
3. Fire – if there's sufficient fuel (keep stock out for 12 months to allow sufficient fuel to accumulate). Kill rate 50-70%.
4. Mechanical options: Suitable for medium to dense infestations, but must be followed up with repeated treatment foliar spraying, basal bark spraying or fire. Use cutter bars, blade ploughing or discing (kill rate of 90% possible), bulldozing (not recommended as low (10%) kill rate and kills native vegetation), slashing using a heavy duty slasher with blunt blades (50% kill rate).
5. Herbicides: Foliar spray, basal bark, cut stump, aerial application using different chemicals and treatment types depending on density and preference

**Strategic Objective:**

To eradicate scattered and isolated infestations of Rubber Vine and contain and reduce larger infestations;

To manage the impacts of established infestations

**Success Indicators:**

- Any new plants are treated;
- No perceived new infestations
- Visible reduction of larger infestations

**Obstacles:**

Floods spread seed, Landholders very reluctant to use fire, difficult to get enough fuel for a fire to burn, many seeds per seed pod, wide spread, access to infestations difficult

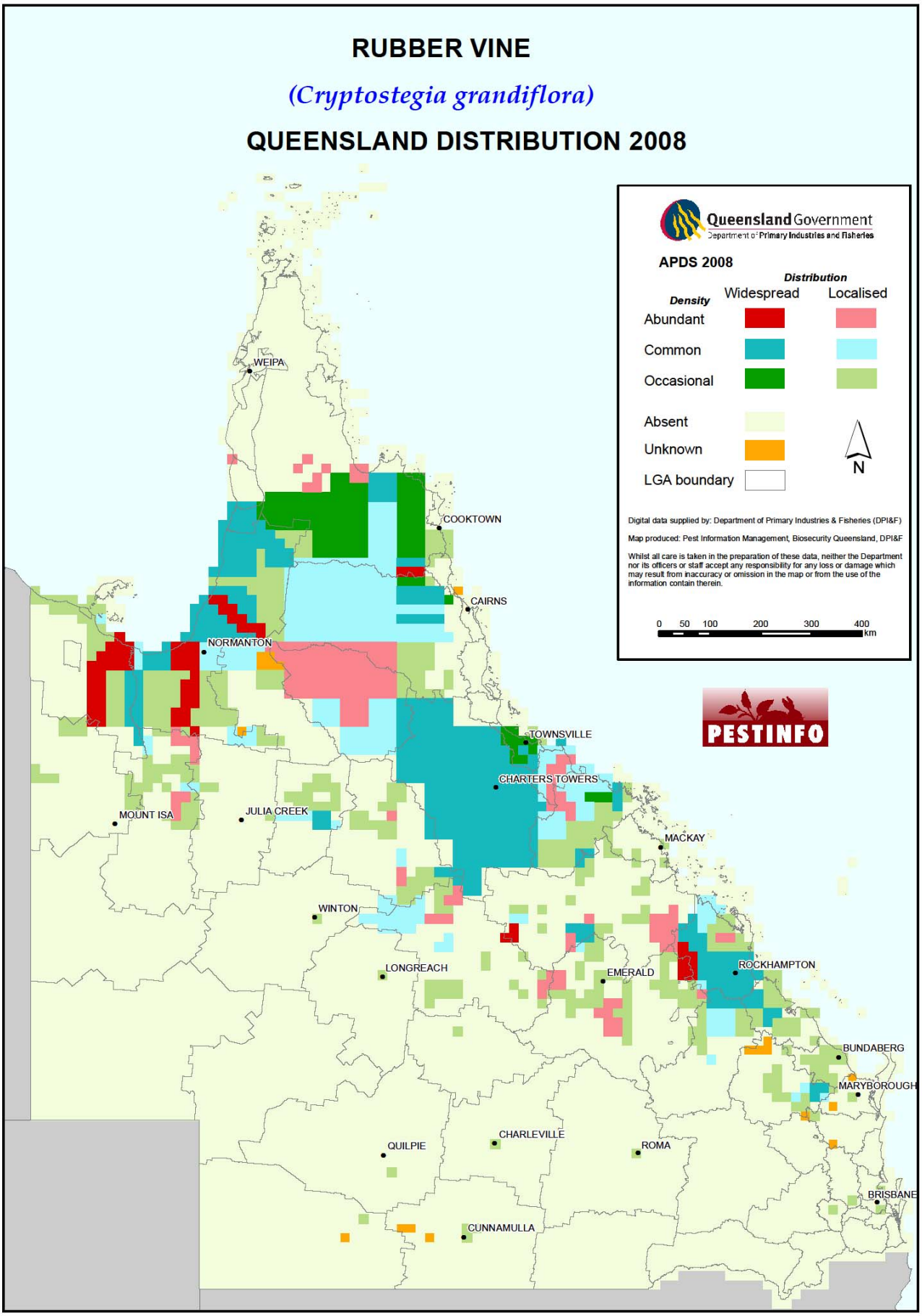
| Action: Rubber Vine | By Whom | When |
|---|---|---|
| 1. Encourage the treatment of scattered and isolated plants; | BSC, BQ, SGC, LH | Ongoing |
| 2. Encourage strategic control based on catchments and containment lines | BSC, BQ, SGC, stakeholders, LH | Ongoing |

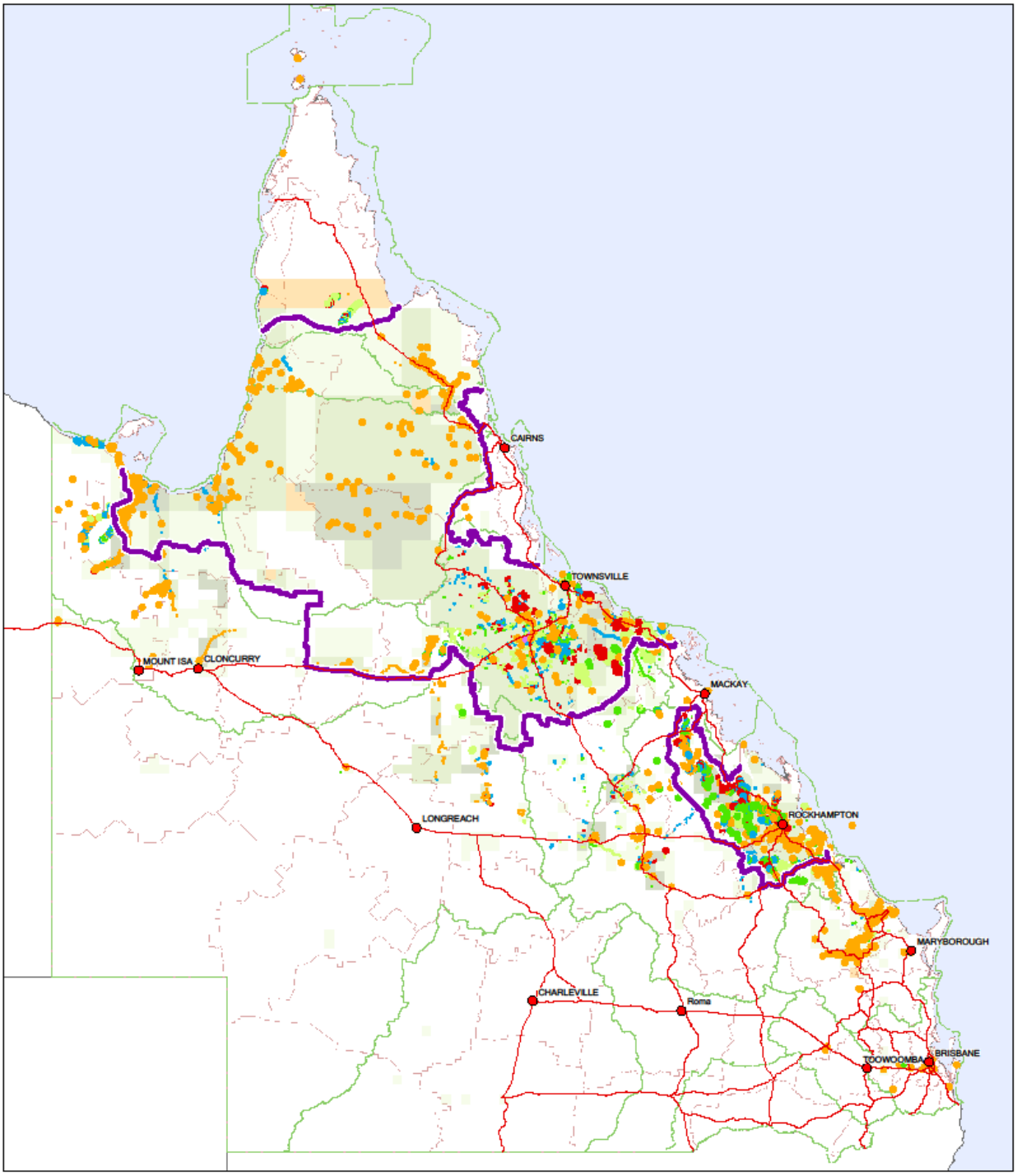
| | | |
|---|---|---|
| 3. Pest Management Officer to chemically control all infestations within the town area | BSC | Ongoing annually |
| 4. Promote the reduction of large infestations by fire (where allowed) and bio-control methods | BSC | On going |
| 5. Provide & educate community on best practice control & identification | BSC, SGC, BQ | Ongoing |
| 6. Opportunistically map infestations throughout shire. | BQ,SGC,BQ, LH/ stakeholders | Ongoing |
| 7. Assist landholders to seek opportunistic funding for control programs | BSC, SGC, BQ | Ongoing |
| 8. Have educational signage erected at tourist camp sites along major water courses. | BSC, SGC, LH | 2011 |

**Pest Monitoring Process:**
Circulate landholders with questionnaire annually as part of Corporate Planning process – June/July.

## Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


RUBBER VINE
(Cryptostegia grandiflora)
QUEENSLAND DISTRIBUTION 2008
Queensland Government
Department of Primary Industries and Fisheries
APDS 2008
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
N
Digital data supplied by: Department of Primary Industries & Fisheries (DPI&F)
Map produced: Pest Information Management, Biosecurity Queensland, DPI&F
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
WEIPA
COOKTOWN
CAIRNS
NORMANTON
TOWNSVILLE
CHARTERS TOWERS
MOUNT ISA
JULIA CREEK
MACKAY
WINTON
LONGREACH
EMERALD
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
CHARLEVILLE
QUILPIE
ROMA
BRISBANE
CUNNAMULLA




QUEENSLAND RUBBERVINE CONTAINMENT LINE
JULY 2008

N

0 100 200 300 400 500 Km

Rubbervine distributions: current and historical

Rubbervine (Density, var. dates)
- Unknown
- High
- Medium
- Low
- Scattered
- Controlled

Annual Pest Dist. Survey 2006
- Unknown
- Low
- Medium
- High

Rubbervine containment lines and mgt areas
- Rubber Vine Containment Line 2008
- Local Government Boundary

Other geographic information
- Town
- Road
- Natural Resource Mgt group boundary
- Local Government Boundary

Digital data supplied by Queensland Department of Primary Industries and Fisheries.
Projection and datum: Geographics, GDA94
Map produced by the Pest Information Group, Biosecurity Queensland, Primary Industries & Fisheries.

This map is compiled from information supplied by officers from the following agencies:

| | |
|---|---|
| Biosecurity Queensland DPI&F | Bauhinia Local Government Authority |
| Environmental Protection Agency | Biggenden Local Government Authority |
| Australia Virtual Herbarium | Calliope Local Government Authority |
| Greening Australia | Emerald Local Government Authority |
| Burnett Mary Regional Group | Fitzroy Local Government Authority |
| Fitzroy Basin association | Gayndah Local Government Authority |
| Southern gulf Catchments | Kolan Local Government Authority |
| Desert Channels Queensland | Townsville city Local Government Authority |
| Barcoo Local Government Authority | Whitsunday Regional Local Government Authority |

# 2. CHINEE APPLE
# (*Ziziphus mauritiana*)

| | Achievability | Priority |
|---|---|---|
| | 2 | HIGH |

**Declaration Category – Plant 2**

**Description:**

Chinee Apple is from Mauritius, India and southwest China. It is a large shrub or small spreading tree up to 8 m high and 10 m in canopy diameter. The plants are densely branched, from ground level in some cases. They grow as open forests or thorny thickets along waterways. Branches are zigzag in shape and have a leaf and a thorn at each angle. Leaves are rounded, glossy green above and almost white underneath. Flowers are small, greenish-white and have an unpleasant smell. The edible fruit are like a cherry but pale yellow or orange when ripe. During the dry, Chinee Apple drops most of its leaves due to water stress. It shows no marked preference for any soil type or vegetative association, but does not grow beneath the canopy of other vegetation.

Dispersal: Trees produce large quantities of fruit, which is readily eaten by stock, birds and humans. Trees, which are damaged at the top can regrow from lignotubers or cut roots.

Control: Large infestations can be knocked down with a bulldozer, pushed into a heap and burned. This should be followed up with chemical control of seedlings and suckers.

Small areas can be controlled with basal bark treatment with Starane (Fluoroxpyr) or Triclopyr (Garlon or Access). The cut stump method is also successful with Triclopyr.

**Impact:**

Dense infestations produce impenetrable thickets, which seriously hamper stock management and reduce pasture productivity and accessibility. This weed also devastates native plants and animals.

Distribution: Predominately around former property homesteads in the Shire

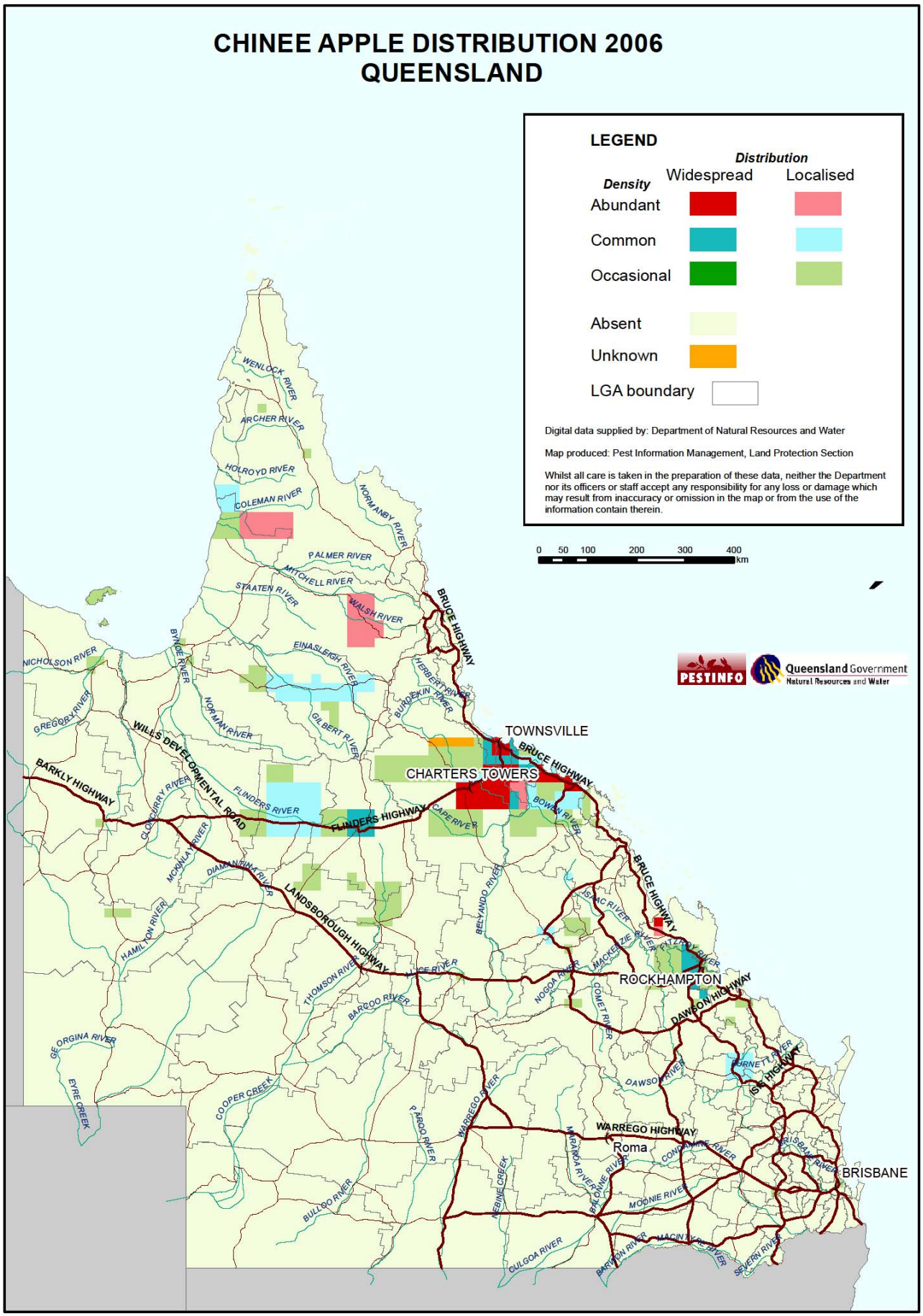
| **Strategic Objective:** | **Success Indicators:** | |
|---|---|---|
| Eradicate plant from Burke Shire | Existing plantings eradicated<br>No new plants found | |
| **Actions:** | **By Whom** | **When** |
| 1. Educate landholders on the pest potential & identification of Chinee Apple as part of extension activities | BQ<br>BSC,SGC | ongoing<br>Bi-Monthly<br>Newspaper |
| 2. Provide best practice control information to landholders | BQ,BSC,SGC | Ongoing |
| 3. Opportunistically map infestations of Chinee Apple in the Burke Shire | BSC,BQ,SGC, LH, stakeholders | Ongoing |
| 4. Pest Management Officer to chemically control all infestations of Chinee Apple within the town and surrounding area (NB: all Parkinsonia, Rubber vine, Belly Ache Bush and Calotrope plants found will be controlled at the same time) | BSC | Ongoing |
| 5. Assist landholders to seek opportunistic funding for control programs | BSC,SGC, LH | Ongoing |
| 6. Encourage the treatment of scattered and isolated plants; | BSC, BQ, SGC, Stakeholder | Ongoing |
| 7. Monitor areas potentially at risk of new infestations | BSC, BQ, Stakeholder | Annually |

**Pest Monitoring Process:**

Circulate landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


CHINEE APPLE DISTRIBUTION 2006
QUEENSLAND
LEGEND
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
Digital data supplied by: Department of Natural Resources and Water
Map produced: Pest Information Management, Land Protection Section
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
Queensland Government
Natural Resources and Water
TOWNSVILLE
CHARTERS TOWERS
ROCKHAMPTON
Roma
BRISBANE
BRUCE HIGHWAY
BARKLY HIGHWAY
WILLS DEVELOPMENTAL ROAD
FLINDERS HIGHWAY
LANDSBOROUGH HIGHWAY
DAWSON HIGHWAY
WARREGO HIGHWAY
ISIS HIGHWAY
WENLOCK RIVER
ARCHER RIVER
HOLROYD RIVER
COLEMAN RIVER
NORMANBY RIVER
PALMER RIVER
MITCHELL RIVER
STAATEN RIVER
WALSH RIVER
EINASLEIGH RIVER
BYNOE RIVER
NICHOLSON RIVER
GREGORY RIVER
NORMAN RIVER
GILBERT RIVER
BURDEKIN RIVER
HERBERT RIVER
FLINDERS RIVER
CLONCURRY RIVER
MCKINLAY RIVER
DIAMANTINA RIVER
HAMILTON RIVER
CAPE RIVER
BOWEN RIVER
BELYANDO RIVER
ISAAC RIVER
MACKENZIE RIVER
COMET RIVER
NOGOA RIVER
THOMSON RIVER
BARCOO RIVER
GEORGINA RIVER
EYRE CREEK
COOPER CREEK
PARROO RIVER
WARREGO RIVER
BULLOO RIVER
NEBINE CREEK
CULGOA RIVER
BALONNE RIVER
MACINTYRE RIVER
BARWON RIVER
CONDAMINE RIVER
MOONIE RIVER
DAWSON RIVER
BURNETT RIVER
BRISBANE RIVER
SEVERN RIVER

# 3. PARKINSONIA
# (Parkinsonia aculeate)

| | Achievability | Priority |
|---|---|---|
| | 4 | MEDIUM |

**Declaration Category – Plant 2**

**Description:** Parkinsonia is a shrub or small tree, rarely growing to 10 metres in height. It has slender green photosynthetic zigzag branches that have sharp spines. Leaf branches are 20 - 40 cm long, flattened with small, oblong leaflets along each edge.

Flowering: The flowers are yellow, fragrant, and have five petals on along drooping stalk. The seeds are oval, hard and about 1.5 cm long, borne in pencil like pods 5 - 10 cm long constricted between seeds.

Dispersal: Pods mature in late summer, float on water and are therefore readily dispersed by floodwaters. Seeds are viable for a number of years.

Control: There are several forms of control methods available to control Parkinsonia:

1. Mechanical control if away from watercourses.
2. Fire will kill seedlings only if there is enough heat.
3. A number of registered herbicides for chemical control are available for: basal bark, cut stump, foliar spray and soil application.

Two biological control agents have been released which attack the seed and have been moderately successful. Another biological control agent has been identified and released in the Burke Shire which attacks the shrubs and causes dieback to large areas of infestation, Two trial releases of this biological control in the Burke Shire is currently being monitored.

**Impact:** Parkinsonia can form dense and often impenetrable thickets along watercourses. This in turn denies access to watering points and makes mustering exceptionally difficult. Such infestations can also harbour large numbers of feral animals.

Distribution: Parkinsonia is readily adaptable to most soil types and has spread to large areas of Queensland. Parkinsonia infestations within the Burke Shire are prolific around disturbed areas, burra pits and road sides.

| Strategic Objective | Success Indicators: |
|---|---|
| To gradually reduce the size of existing infestation and prevent further spread | • No new plants detected<br>• Infestations reduced |

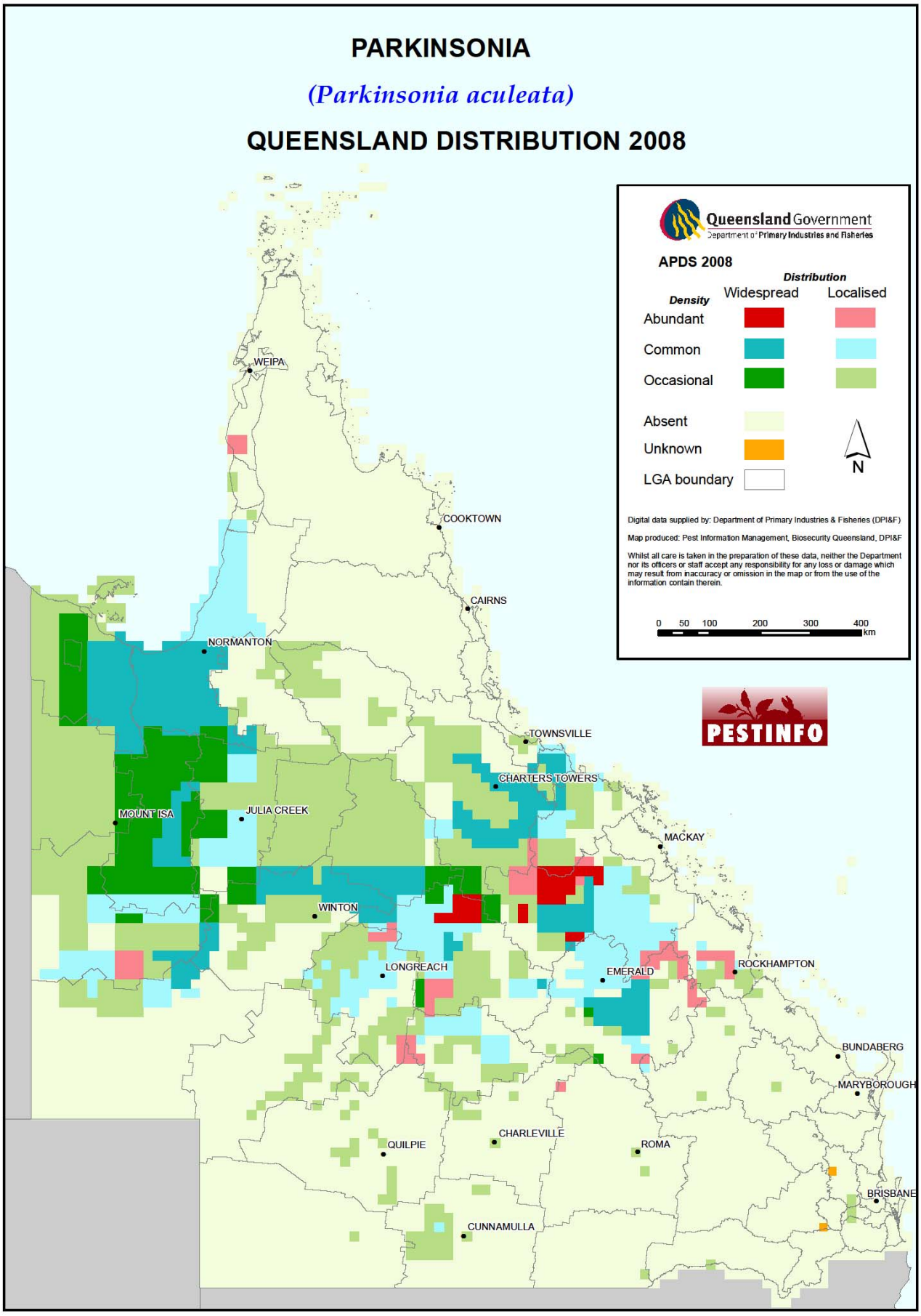
**Obstacles:**
Access to infestations difficult

| Actions: | By Whom | When |
|---|---|---|
| 1. Educate landholders on the pest potential, impacts of Parkinsonia & control as part of extension activities | BSC,BQ,SGC, stakeholders | Ongoing |
| 2. Provide best practice control information to landholders | BSC,BQ,SGC, stakeholders | Ongoing |
| 3. Opportunistically map infestations of Parkinsonia in the Burke Shire | BSC,BQ,SGC, stakeholders, LH | Ongoing |
| 4. Pest Management Officer to chemically control all infestations within the town and surrounding area (NB: all, Rubber vine, Belly Ache Bush and Calotrope plants found will be controlled at the same time) | BSC | Annually |
| 5. Assist landholders to seek opportunistic funding for control programs | BSC, SGC, stakeholders | Ongoing |
| 6. Encourage the treatment of scattered and isolated plants; | BSC, SGC, BQ, stakeholders | Ongoing |
| 7. Monitor areas potentially at risk of new infestations | BSC, LH, stakeholders | Ongoing |
| 8. Encourage and support the minimisation of impacts on high conservation wetlands | BSC, SGC, stakeholders | Ongoing |
| 9. Participate in dieback control trials | BSC, BQ, LH | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July

## Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


PARKINSONIA
(Parkinsonia aculeata)
QUEENSLAND DISTRIBUTION 2008
Queensland Government
Department of Primary Industries and Fisheries
APDS 2008
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
N
Digital data supplied by: Department of Primary Industries & Fisheries (DPI&F)
Map produced: Pest Information Management, Biosecurity Queensland, DPI&F
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
WEIPA
COOKTOWN
CAIRNS
NORMANTON
TOWNSVILLE
CHARTERS TOWERS
MOUNT ISA
JULIA CREEK
MACKAY
WINTON
LONGREACH
EMERALD
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
QUILPIE
CHARLEVILLE
ROMA
BRISBANE
CUNNAMULLA

# 4.CALOTROPE
# (Calotropis procera)

| | Achievability | Priority |
|---|---|---|
| | 2 | Medium |

**Declaration Category - Nil**

**Description:** Calotrope is a native of tropical Africa and Asia. It is a spreading shrub or small tree, which can grow up to 4 metres in height. A milky sap oozes from any part of the plant, which is cut or broken. Stems are smooth and pale greyish-green. Mature stems have a characteristic beige corrugated bark, cork like in appearance and texture. Grey-green leaves are attached in opposite pairs directly to the stem. Leaves are large (10 - 20 cm long and 4 - 10 cm Wide) with a short pointed tip and heart shaped base.

Flowering: Flowers grow in groups (of up to 15) in the forks of the uppermost leaves. They have 5 waxy petals that white, purple tipped and a central purplish crown.

Dispersal: Large mango shaped fruit about 8 - 12 cm long that bursts open when ripe to release numerous seeds which have tufts of long silky hairs at one end. Can be carried long distances on the wind.

**Control: Foliar Spraying, Cut Stump or Basal Bark Spraying can achieve chemical control.**

**Impact:** Calotrope can readily become established on overgrazed pastoral land or land disturbed by human interference. Dense thickets can form on alluvial flats or along rivers, which in turn will decrease pasture production and access to watering points as well as decreasing property values. **NB:** poisonous to both stock and humans.

**Distribution: Widely naturalized across large areas of the Gulf country.**

| **Strategic Objective:** | **Success Indicators:** |
|---|---|
| • Control in town area;<br>• Investigate threat to rural landholders. | No new infestations within the town area |

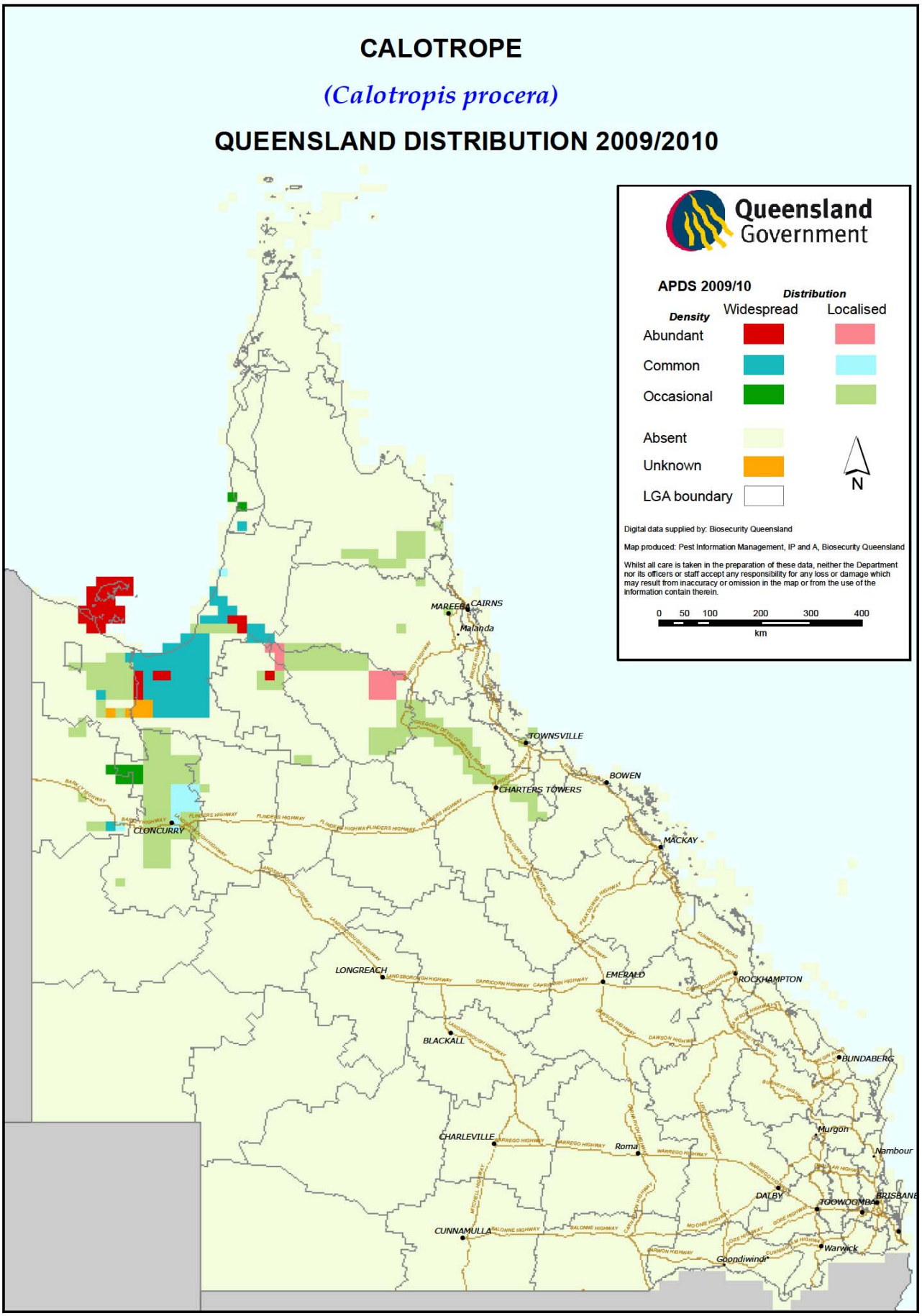
**Obstacles:**

Access to infestations, extent of the problem is not known, the perception by graziers that Calotrope is a stockfeed

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Pest Management Officer to chemically control all infestations within the town area (NB: Calotrope to be treated as part of control in town area) | BSC | Annually |
| 2. Ascertain concern by landholders to the plant | BSC | As reported |
| 3. Educate landholders on the Pest Potential, identification & control of Calotrope as part of Extension activities: | BSC, BQ, stakeholders | Ongoing |
| 4. Opportunistically map infestations | BSC, LH, stakeholders | Ongoing |

Resources

Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


CALOTROPE
(Calotropis procera)
QUEENSLAND DISTRIBUTION 2009/2010
Queensland Government
APDS 2009/10
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
N
Digital data supplied by: Biosecurity Queensland
Map produced: Pest Information Management, IP and A, Biosecurity Queensland
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
MAREEBA
CAIRNS
Malanda
TOWNSVILLE
BOWEN
CHARTERS TOWERS
CLONCURRY
MACKAY
LONGREACH
EMERALD
ROCKHAMPTON
BLACKALL
BUNDABERG
CHARLEVILLE
Roma
Murgon
Nambour
DALBY
TOOWOOMBA
BRISBANE
CUNNAMULLA
Warwick
Goondiwindi

# **5**.NOOGOORA BURR (Xanthium pungens)

| | Achievability | Priority |
|---|---|---|
| | 4 | Low |

**Declaration Category – Nil**

**Description:** Noogoora Burr is an erect annual herb that can grow up to 2.5 metres in height. It has blotched purple stems and leaves that are dark green on the upper surface and are of similar shape to a grape. Flowers are not readily noticeable but develop into hard woody spiny burrs about 1.2 to 2 cm in length with numerous hooked spines

Dispersal : Noogoora Burr is exceptionally common along river and creek flats. Seeds are also readily dispersed by stock and machinery.

Control: numerous methods of control are available:

1. Cultivation prior to flowering.
2. Hand pulling isolated seedlings prior to flowering.
3. Spraying with 2,4-D Amine prior to flowering will give excellent results.
4. Some level of control has been achieved using biological control agents: particularly a Rust Fungus (*Puccinia xanthii*), which is more effective in the tropical areas. There are also stem boring and stem galling insects that have been released with varying levels of success.

**Impact:** It decreases pasture production and can also deny stock access to watering facilities. Seedlings are poisonous to domestic stock.

Distribution: Noogoora Burr is widespread across Queensland but particularly prefers alluvial flood plains.

| **Strategic Objective:** | **Success Indicators:** |
|---|---|
| Control and reduce effect | No dead cattle reports |

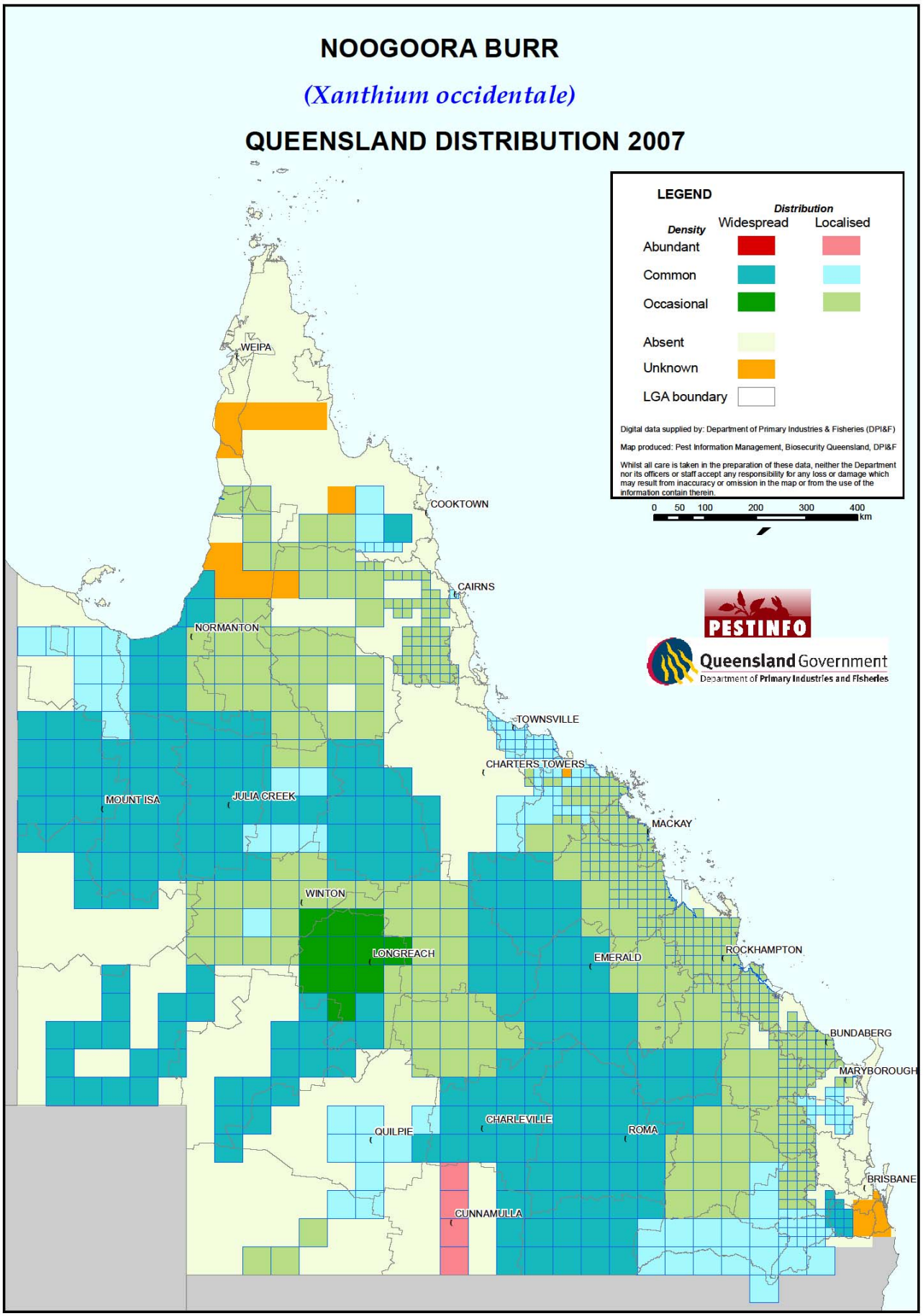
**Obstacles:**
Longevity of seed, access to areas infested (usually creeks) when actively growing

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Monitor and encourage landholders to control plants in strategic areas | BSC | Ongoing |
| 2. Educate landholders on the Pest Potential and control of Noogoora Burr | BSC | Ongoing |
| 3. Landholders to ensure adequate levels of Noogoora Burr Rust Fungus are present in years of higher rainfall | BSC, LH | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


NOOGOORA BURR
(Xanthium occidentale)
QUEENSLAND DISTRIBUTION 2007
LEGEND
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
Digital data supplied by: Department of Primary Industries & Fisheries (DPI&F)
Map produced: Pest Information Management, Biosecurity Queensland, DPI&F
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
Queensland Government
Department of Primary Industries and Fisheries
WEIPA
COOKTOWN
CAIRNS
NORMANTON
TOWNSVILLE
CHARTERS TOWERS
MOUNT ISA
JULIA CREEK
MACKAY
WINTON
LONGREACH
EMERALD
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
CHARLEVILLE
QUILPIE
ROMA
BRISBANE
CUNNAMULLA

# 6. BELLYACHE BUSH (Jatropha gossypifolia)

| | Achievability | Priority |
|---|---|---|
| | 2 | High |

**Declaration Category – Plant 2**

**Description:** Bellyache Bush is a native of North America. It is a squat, thick-stemmed shrub 2.5 to 4 metres tall developing from a short, single stemmed plant with three or four young leaves sprouting from the top. Young leaves are deeply divided into three rounded lobes, and are purple coloured and sticky. Older leaves are bright green, about 10 cm in diameter and may have up to five lobes, the edges are covered in course dark brown hairs.

Flowering: The flowers are small, red with yellow centres, and are in small clusters throughout the upper part of the plant. Seed pods are smooth and oval, about the size of a cherry, 12 mm across and contain three to four seeds about 8 mm long.

Control: Control can be achieved by overall spraying with either Brushoff or Starane and a wetting agent. Grubbing by hand is useful for minor infestations and fire and slashing will also reduce major infestations of Bellyache Bush.

**Impact:** Bellyache Bush out-competes native vegetation, reduces pasture growth, and hinders mustering. It is exceptionally aggressive on areas of prime river frontage. The fruits of the plant are poisonous to both humans and livestock. NB: Bellyache Bush can cause death.

Distribution: Thick patches along the banks of the Gregory River where it has showed adaptability to a variety of soil types.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • To eradicate Bellyache Bush from the Burke Shire. | • No new infestations indentified;<br>• Reduction & eradication |

Obstacles**:**
Occurs on river banks where annual flooding aids in the spread of seed.

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Monitor, awareness exercises & identify suspect plants with in town area | BSC | Ongoing |
| 2. Pest Management Officer to re-inspect town area whilst conducting spray programs to observe presence of Belly Bush plants in gardens and adjacent areas and to ask landholders to destroy any plants found. | BSC | Ongoing |
| 3. Pest Management Officer to monitor & destroy plants in the vicinity of the Gregory town dump. | BSC, stakeholders | Annually after rain |
| 4. Provide, identification, impact and best practice control information to landholders | BSC, BQ, SGC, stakeholders | Ongoing |
| 5. Opportunistically map infestations of Chinee Apple in the Burke Shire | BSC, BQ, SGC, stakeholders, LH | Ongoing |
| 6. Pest Management Officer to chemically control all infestations within the town and surrounding area (NB: all Parkinsonia, Rubber vine, and Calotrope plants found will be controlled at the same time) | BSC | Annually |
| 7. Assist landholders to seek opportunistic funding for control programs | BSC, SGC, BQ, LH, stakeholders | Ongoing |
| 8. Monitor areas potentially at risk of new infestations & education landholders | BSC, LH, stakeholders | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.

# 7. NEEM TREE
# (Azadirachta indica)

| | Achievability | Priority |
|---|---|---|
| | 2 | Low |

**Declaration Category - Nil**

**Description:** Neem is a moderate to large size tree 12 - 2- meters high, reaching a girth of 1.8 – 2.5 meters. It forms a round crown with a spread of 5 - 10 meters; it is a broad leaf, evergreen tree, except in periods of drought when it will drop leaves; has a relatively straight trunk with moderately thick bark; roots deeply; grows moderately fast; is hardy; coppices rapidly and produces root- suckers.

Leaves are alternate, compound, 23 - 38 cm long. Leaflets (7 to 17) alternate or opposite, very shortly stalked, 6 - 7 cm long, oblique, toothed.

The tree is open pollinated, and the small, white, scented, bisexual flowers are borne on auxiliary clusters, which are shorter than the leaves and attract bees.

The fruit smooth, ellipsodal drupe 1.2 - 1.8 cm long, greenish-yellow when ripe, with a bittersweet pulp and one to two seeds. The flowers and fruit stink badly after rain.

**Impact:** Neem Trees are a recent Environmental Pest Species. That rapidly colonises areas where there is adequate moisture to sustain their rapid growth.

Distribution: Throughout Northern Queensland the Neem Tree is readily planted as a shade tree. There is also a large plantation on the Gilbert River in the Etheridge Shire.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • To monitor the current population within the Shire | • Request reports from landholders through Burke Shire Newsletter Items & monitor for reports of increases & problems. |

**Obstacles**: Easily spread by seed by wind, water or birds.

| **Actions** | **By Whom** | **When** |
|---|---|---|
| 1. Monitor and awareness exercises<br>• Educate landholders on the Pest Potential of Neem Trees<br>• Opportunistically map infestations<br>• Continue to review annually | BSC, LH, stakeholders | Review Annually |

## Pest Monitoring Process:

Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.

# **8**. PARTHENIUM
# (*Parthenium hysterophorus*)

**Declaration Category – Plant 2**
**Description:**
Parthenium is a native of subtropical North and South America. It is an annual herb with a deep taproot 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 2 m. The leaves are pale green, lobed and covered with soft, fine hairs. Small creamy white flowers occur on the tips of the numerous stems. Seeds are 2 mm long, black with two thin white scales.
Dispersal: Spread easily by machinery, feral animals, humans, vehicles, stock fodder, stock movement and pasture seeds.
Control: Manual – hand-pulling is not recommended due to health hazards of plant contact as well as the danger that mature seeds will drop off and increase the area of infestation. Burning is generally not an option for this weed. Pasture management and timely herbicide application is the key to successful management of this weed. 7 herbicides are registered for the purpose (refer BQ Pest Fact).

**Impact:**
Parthenium can overrun weak or overgrazed pastures with low ground cover and disturbed bare areas along roadsides, yards and watering points. It reduces the reliability of establishment of pasture, reduces pasture production potential and reduces land values. Parthenium is also a health problem as contact with the plant or the pollen can cause serious allergic reaction such as dermatitis and hay fever.
Distribution: Parthenium will grow anywhere, however it has not established as a serious pest in high rainfall areas. **NB:** Parthenium is not yet found in the Burke Shire but the potential for contamination from other areas by vehicle or in stockfeed is exceptionally high.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • To keep out of the Burke Shire | • No infestations found |

**Obstacles:**
Large quantities of traffic (via tourists and stock movements) and stock feed entering shire that could easily be contaminated, longevity of seed, spreads rapidly, lack of people in the shire who can accurately identify Parthenium

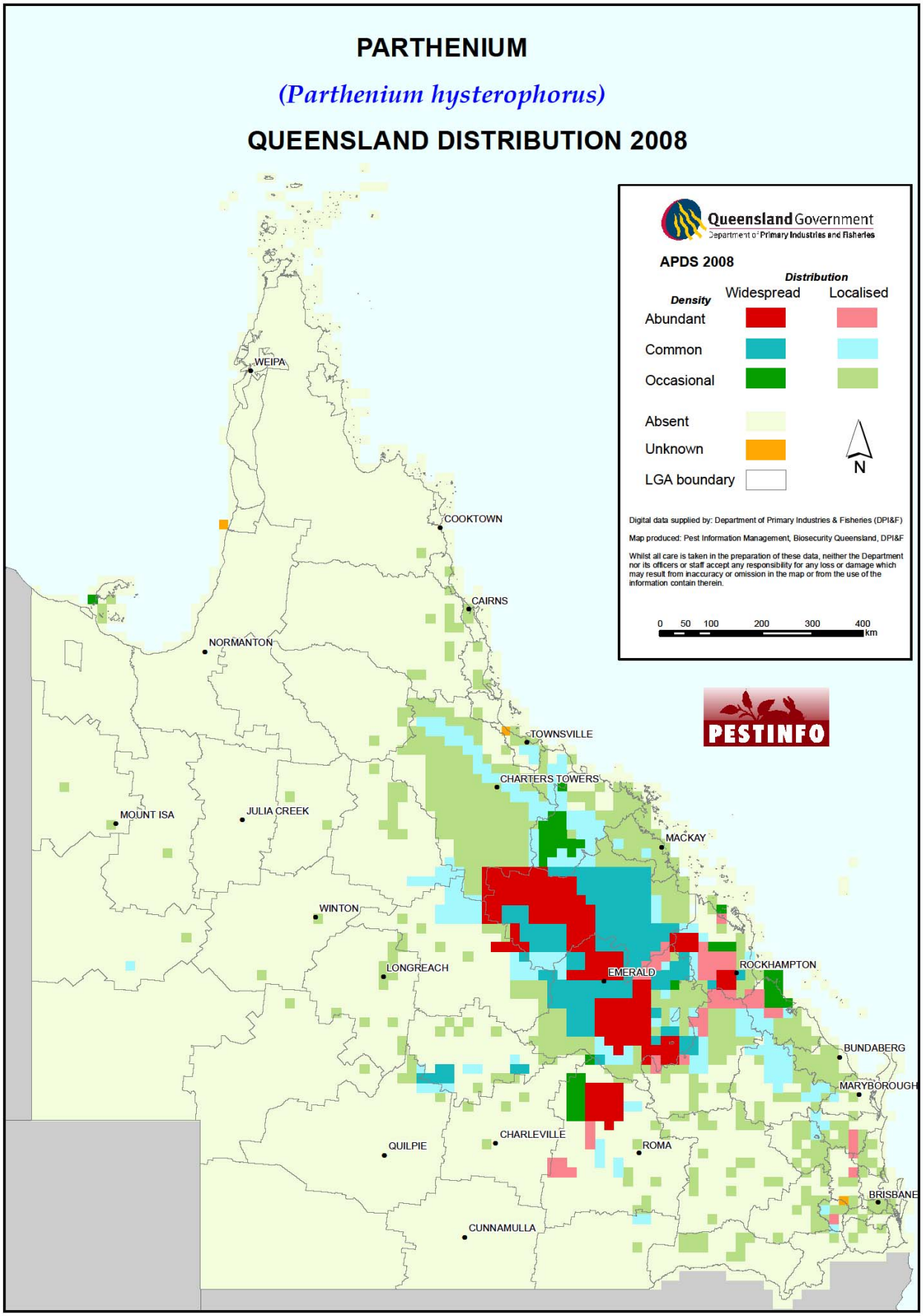
| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Educate landholders on the pest potential, impacts and identification of Parthenium | BSC, BQ, SGC | Ongoing |
| 2. Landholders and Pest Management Officer to monitor properties and roadsides for presence of Parthenium | BSC, LH, stakeholders | Annually after rain |
| 3. Pest Management Officer to be notified of all suspect plants. BQ to assist with positive identification and advice on control strategy. | BSC, LH, Stakeholder | Ongoing |
| 4. Target awareness campaigns at landholders in areas at risk of invasions | BSC, BQ, SGC, stakeholders | Ongoing |
| 5. Provide best practice control information to landholders | BSC, BQ, SGC, stakeholders | Ongoing |
| 6. Pest Management Officer to GPS and record location and density of all Parthenium infestations if found in shire | BSC, SGC, LH, stakeholder | As required |
| 7. Seek out and apply for funding for control and survey work | BSC, SGC, LH | Ongoing |
| 8. Provide advice on agisted cattle & equipment movements | BSC, LH | Ongoing |
| 9. Educate Landholders on the importance of good property hygiene. | BSC, BQ, stakeholders | Ongoing |

# Pest Monitoring Process:

Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required


PARTHENIUM
(Parthenium hysterophorus)
QUEENSLAND DISTRIBUTION 2008
Queensland Government
Department of Primary Industries and Fisheries
APDS 2008
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
N
Digital data supplied by: Department of Primary Industries & Fisheries (DPI&F)
Map produced: Pest Information Management, Biosecurity Queensland, DPI&F
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
WEIPA
COOKTOWN
CAIRNS
NORMANTON
TOWNSVILLE
CHARTERS TOWERS
MOUNT ISA
JULIA CREEK
MACKAY
WINTON
LONGREACH
EMERALD
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
CHARLEVILLE
QUILPIE
ROMA
BRISBANE
CUNNAMULLA

# 9. PRICKLY ACACIA
# (Acacia nilotica)

| | Achievability | Priority |
|---|---|---|
| | 3 | High |

**Declaration Category – Plant 2**

**Description:** Prickly Acacia is a thorny shrub or small tree that is originally a native of Pakistan. It usually grows to about 4 – 5 metres in height but can grow as high as 10 metres. Young shrubs form dense thorny thickets while the mature trees are usually single stemmed with spreading branches, which have lost most of their thorns. Leaves are finely divided and fern like, with four to ten pairs of narrow green leaflets on each branch. Pairs of stout thorns, usually 5 to 10 cm long grow at the base of leaves.

Flowering: Flowers are golden-yellow, ball-shaped and about 1 cm across. They grow on stems from the leaf joint with 2 to 6 flowers per group. The pods are 10 to 15 cm or longer, flat, with narrow constrictions between the seeds, and grey when ripe.

Dispersal: Dispersal is mostly by stock. Seeds can remain viable in cattle stomachs and have been responsible for most new infestations throughout the shire. Seeds can also be moved by machinery and along waterways.

Control: Control can be achieved by various methods:

1. Chemical - a range of herbicides are registered for soil application, basal bark, cut stump, foliar spraying.
2. Mechanical - a range of mechanical options have been produced to treat large infestations of Prickly Acacia including: pushing, stick raking, chain pulling, and blade ploughing with both front and rear mounted blades. **NB:** mechanical methods can sometimes produce an ideal seedbed for seedlings to make the problem worse.
3. Biological control – numerous Biological control agents associated with Australian native Acacias will readily attack Prickly Acacia. Large areas of dieback are usually reported in times of severe water stress. Field officers are currently working in South Africa to find other biological control agents.
4. Management - a number of management options will help to contain the problem:

- do not let livestock graze mature pods (pods will drop and insects will usually destroy a percentage of pods on the ground)
- incorporate strategic fencing to contain Prickly Acacia
- quarantine stock when moving them from infested paddocks to clean areas
- do not overgraze
- feed nitrogen supplements at critical stages

**Impact:** Although initially imported to Australia for its shade and fodder values it became obvious that in the long term it decreases productivity as the larger trees choke out pastures. It also forms impenetrable thickets (particularly along bore drains and around watering points) that make mustering and access to watering points impossible. Thorns can produce large annual maintenance costs in tyre repairs and are exceptionally dangerous to both humans and livestock.

Distribution: Prickly Acacia will grow in most areas throughout Queensland, however it has not established as a serious pest is high rainfall areas..

| **Strategic Objective:** | **Success Indicators:** |
|---|---|
| To eradicate from the Burke shire. | No new infestations reported.<br>Current infestations eradicated |

**Obstacles:**

Large quantities of traffic (via tourists and stock movements) and stock feed entering shire that could easily be contaminated, longevity of seed

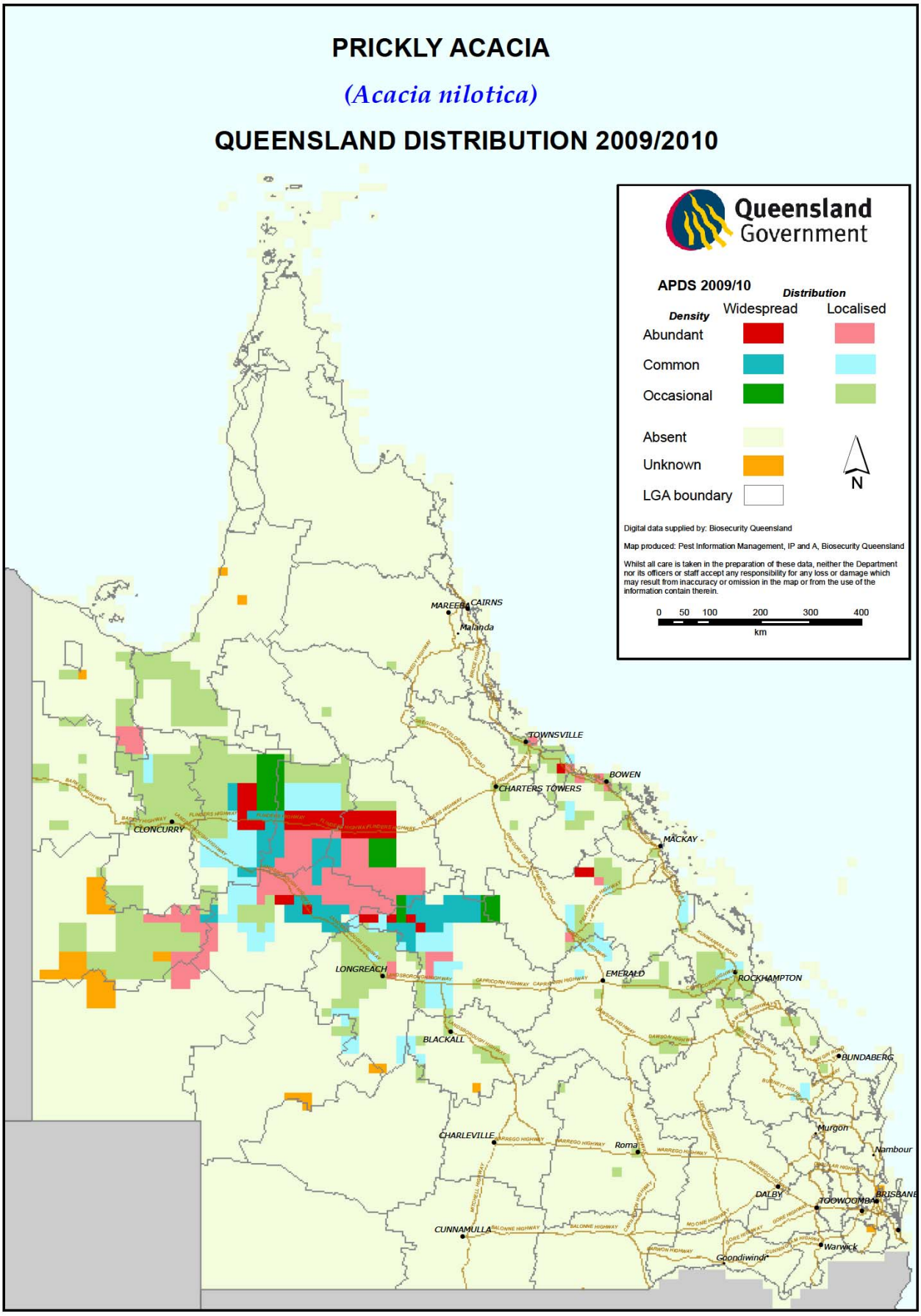
| Actions: | By Whom | When |
|---|---|---|
| **1.** Educate landholders on the Pest potential, impacts and control of Prickly Acacia | BSC, BQ, SGC, LH, stakeholders | Ongoing |
| **2.** Landholders and Pest Management Officer to monitor properties and roadsides for presence of Prickly Acacia | BSC, LH, stakeholders | Ongoing |
| **3.** Pest Management Officer to be notified of all suspect plants. BQ staff to assist with positive identification and advice on control strategy. | BSC, BQ, LH, stakeholders | Ongoing |
| **4.** Encourage the treatment of scattered and isolated plants; | BSC, BQ, stakeholder | Ongoing |
| **5.** Encourage strategic control based on catchments and containment lines | BSC, SGC, BQ, LH, stakeholder | Ongoing |
| **6.** Pest Management Officer to chemically control all infestations within the town area | BSC | Annually |
| **7.** Opportunistically map infestations throughout shire. | BSC, SGC, BQ, LH, stakeholder | Ongoing |
| **8.** Assist landholders to seek opportunistic funding for control programs | BSC, SGC | Ongoing |
| 9. Provide advice on agisted cattle & equipment movements and educate landholders on the importance of good property hygiene | BSC, LH, stakeholders | Ongoing |

**Pest Monitoring Process:**

Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


PRICKLY ACACIA
(Acacia nilotica)
QUEENSLAND DISTRIBUTION 2009/2010
Queensland Government
APDS 2009/10
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
N
Digital data supplied by: Biosecurity Queensland
Map produced: Pest Information Management, IP and A, Biosecurity Queensland
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
CAIRNS
MAREEBA
Malanda
TOWNSVILLE
CHARTERS TOWERS
BOWEN
CLONCURRY
MACKAY
LONGREACH
EMERALD
ROCKHAMPTON
BLACKALL
BUNDABERG
CHARLEVILLE
Roma
Murgon
Nambour
DALBY
TOOWOOMBA
BRISBANE
Warwick
Goondiwindi
CUNNAMULLA

# 10. MESQUITE
# *(Prosopis glandulosa, P. pallida* and *P. velutina)*

| | **Achievability** | **Priority** |
|---|---|---|
| | 3 | High |

**Declaration Category – 2**

**Description:**

Mesquite can occur as a multi-stemmed shrub with branches drooping to the ground, around 3-5 m high, or as a single-stemmed tree with a spreading canopy growing to 15 m.Leaves are fernlike in appearance.
Each leaf has 1−4 pairs of leaf branches (pinnae), with each 'branch' having 6−18 pairs of individual leaflets.
Leaflets vary from oval-shaped to long and narrow depending on the species.
Foliage is usually dark green but can vary to bluish green. Paired thorns usually occur just above each leaf axil.
Small greenish-cream 'lamb's tail' shaped flowers grow near the ends of branches in wattle-like spikes,
5-12 cm long. Seed pods are 10−20 cm long, straight to slightly curved, smooth, with slight constrictions between the seeds. When ripe the pods are straw coloured, or purplish in some species.
Each pod contains between 5−20 hard seeds .Mesquite can appear rather untidy with individual zigzagged twigs sticking out beyond the main canopy.

**Impact:**

Mesquite, once a favoured shade tree around homesteads, has spread significantly in Queensland and unless checked, will continue to do so. Although sparse stands of mesquite trees may provide shade and some fodder for stock, dense impenetrable thickets can often form. Many infestations are along waterways, both natural and constructed, however plants will do just as well away from water. Even in rangelands it is an aggressive competitor and can quickly invade upland country. Mesquite thickets can out-compete other vegetation, interfere with mustering and block access to watering places.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • Eradicate from Burke Shire | • Mesquite eradicated from Shire<br>• No new infestations |

**Obstacles**: Landholder attitudes towards the shade tree.

| Actions | Who | When |
|---|---|---|
| • Educate landholders on the Pest potential, impact and control of Mesquite | BSC, BQ, SGC, stakeholders | Ongoing |
| • Landholders and Pest Management Officer to monitor properties and roadsides for presence of Mesquite | BSC, LH, stakeholder | Ongoing |
| • Pest Management Officer to be notified of all suspect plants. BQ staff to assist with positive identification and advise on control strategy | BSC, BQ, LH | Ongoing |
| • Provide advice on agisted cattle and equipment movements | BSC, LH | Ongoing |
| • Educate Landholders on the importance of good property hygiene. | BSC, LH, BQ, stakeholder | Ongoing |
| • Eradicate from Shire: Access 60:1 | All stakeholders | Ongoing |
| • Encourage the treatment of scattered and isolated plants; | BSC, BQ, SGC, LH, stakeholder | Ongoing & as part of weed projects |
| • Encourage strategic control based on catchments and containment lines | BSC, BQ, SGC, LH, stakeholder | Ongoing & as part of weed projects |
| • Pest Management Officer to chemically control all infestations within the town area | BSC | Annually |
| • Opportunistically map infestations throughout shire. | BSC, BQ, SGC, LH, stakeholder | Ongoing |
| • Assist landholders to seek opportunistic funding for control programs | BSC, BQ, SGC, LH, stakeholder | Ongoing |

**Pest Monitoring Process:**

Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

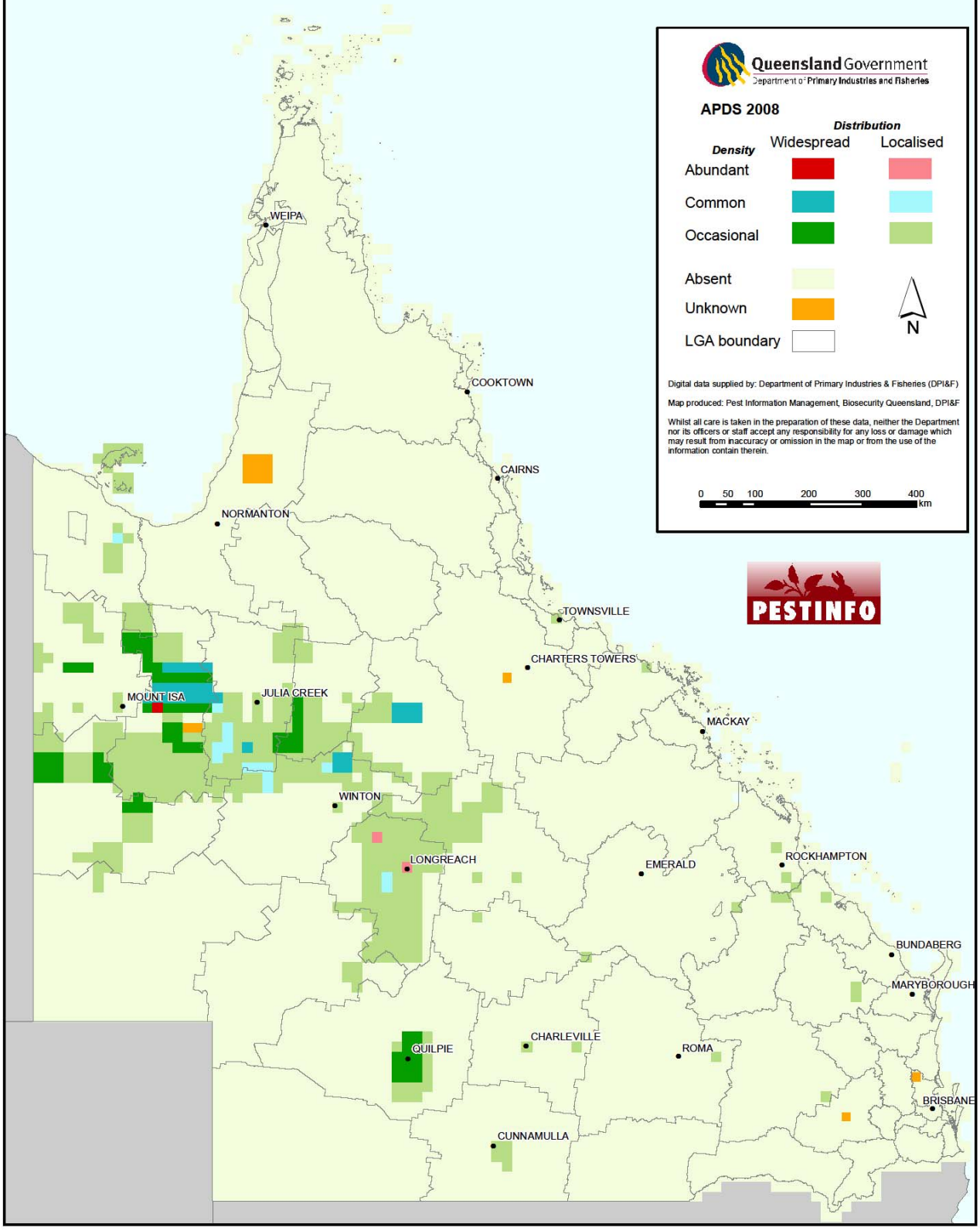
Resources

Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.

# MESQUITE

*(Prosopis spp.)*

## QUEENSLAND DISTRIBUTION 2008



# 11. GRADER GRASS (Themeda quadrialvis)

| | Achievability | Priority |
|---|---|---|
| | 2 | Medium |

- **Declaration Category – Nil**
- **Description:**

Grader Grass (Alternative Names: Habana Grass, Oatgrass)
A robust erect tufted annual grass, 50 to 200 cm high, growing in patches and turning brown at maturity, reproducing by seed. Stems: Green at first, brown when mature, 1 to 5 or more on the annual rootstock, 50 to 200 cm high, glabrous. Leaves: Brown when mature, alternate, well spaced; blades folded in the bud, long narrow and sometimes with margins rolled back. Inflorescence: A brown or reddish tinged, loose drooping panicle at maturity, 20 to 30 cm long; spikelet clusters in short racemes each subtended by a spathe; the spikelet group consists of (a) a solitary sessile and fertile bisexual spikelet, (b) 1 or 2 stalked male spikelets, the whole surrounded by (c) an involucre of 4 sessile, sterile subterminal spikelets, glabrous except for long tubercle-based hairs near the apex; the fertile spikelet contains a single, stalked and awned fertile floret above and a sessile sterile floret below. Seed: Brown, 6 to 7 mm long, enclosed in persistent glumes, usually with a terminal awn; the callus is blunt, rounded, less than 1 mm long and bearded. Root: Fibrous.

Life Cycle: Seeds do not germinate in the dark but germinate at any time of the year when light and moisture are present. In the Northern Territory, most seeds germinate with the onset of the wet season between October and December. Growth is rapid when available moisture remains high, plants reaching a height of 2 metres in 6 to 8 weeks. Flowering begins 5 or 6 weeks after germination and ripe seeds are present at 10 weeks. Grader grass dies when all seeds have matured.
Dispersal: Grader grass seeds are not adapted in any way for dispersal by wind and water. The major proportion fall close to the parent plant, its prolific seeding habit ensures rapid development of the colony once it is established in an area. Seeds are carried considerable distances on wool, fur, clothing and other fibrous materials and in roadside soil moved by graders. Seed is also spread in mud sticking to animals and machinery and as a contaminant in agricultural produce, particularly pasture seed.
Control: Because grader grass is an annual, preventing flowering, seed set and germination of existing seeds, is the key to successful control. Whenever possible, prevent the introduction of grader grass into clean areas; specifically purchase only seed certified free of grader grass and, when moving stock, yard them in a small paddock for three or four days before moving them to clean paddocks. Ensure that management practices do not permit light to get to the soil surface; avoid fires, heavy stocking, short mowing, and soil disturbance. Do not overstock native grasslands at any time because most have a relatively open canopy. Limit the practice of burning to remove excess growth to one year in four at most. Maintain all sown pastures in a vigorous state by topdressing and using low stocking rates. If grader grass is present, slash below the panicle when it is at the flowering or soft dough stage of seed development to minimize the number of viable seeds produced. Remove incipient infestations manually and, if seed heads are present, burn in a way which generates sufficient heat to kill seeds, for example, inside a drum. Kill the larger colonies by spraying with paraquat, adding a non-ionic surfactant to the spray solution. Apply the spray when plants are less than knee high. Alternatively, to minimize damage to other pasture plants, apply glyphosate with a rope-wick applicator, passing the wiper across the area 12 to 15 cm above the pasture when the grader grass is at least 25 cm above pasture height. Better results are obtained when two applications are made at right angles and speed of travel is less than 8 kph. Trifluralin, fluazifop butyl, haloxyfop and quizalofop have also been used overseas to control grader grass in Lucerne and other legume seed crops.

**Impact**:

Habitat**:** Subhumid and semi-arid subtropical and tropical pastures in areas of marked seasonal rainfall. Often occurring as a weed in moist disturbed areas such as road verges, railway enclosures, and waste places, from where it invades degraded native grasslands and sown pastures as well as some arable areas.

Properties: Grader grass is readily eaten by stock before the panicle appears, but flowering plants are rarely grazed. The leaf stem weight ratio is low at 1:4; and the plant matures rapidly and then dies. Because of its extremely short, barely useful life and its ability to spread quickly, grader grass is a serious threat to productivity in both native grassland and sown pastures of semi-arid monsoonal regions of northern Australia. It also grows readily in young sugarcane, competing with the crop and significantly reducing yields. Grader grass can also be troublesome in Lucerne and other legume seed crops and thrives on headlands, wastelands and roadsides where it becomes a hazard by reducing visibility on curves and at corners. Each grader grass seed carries an awn which, twisting when moistened pushes the seed callus into the soil. Because grader grass does not germinate in darkness or deep shade, this action, together with the removal of other ground cover, gives the plant an ecological advantage.

| **Strategic Objective:** | **Success Indicators:** |
|---|---|
| • Ensure landholders are aware of this weed and on how to treat it. | • No new infestations found |

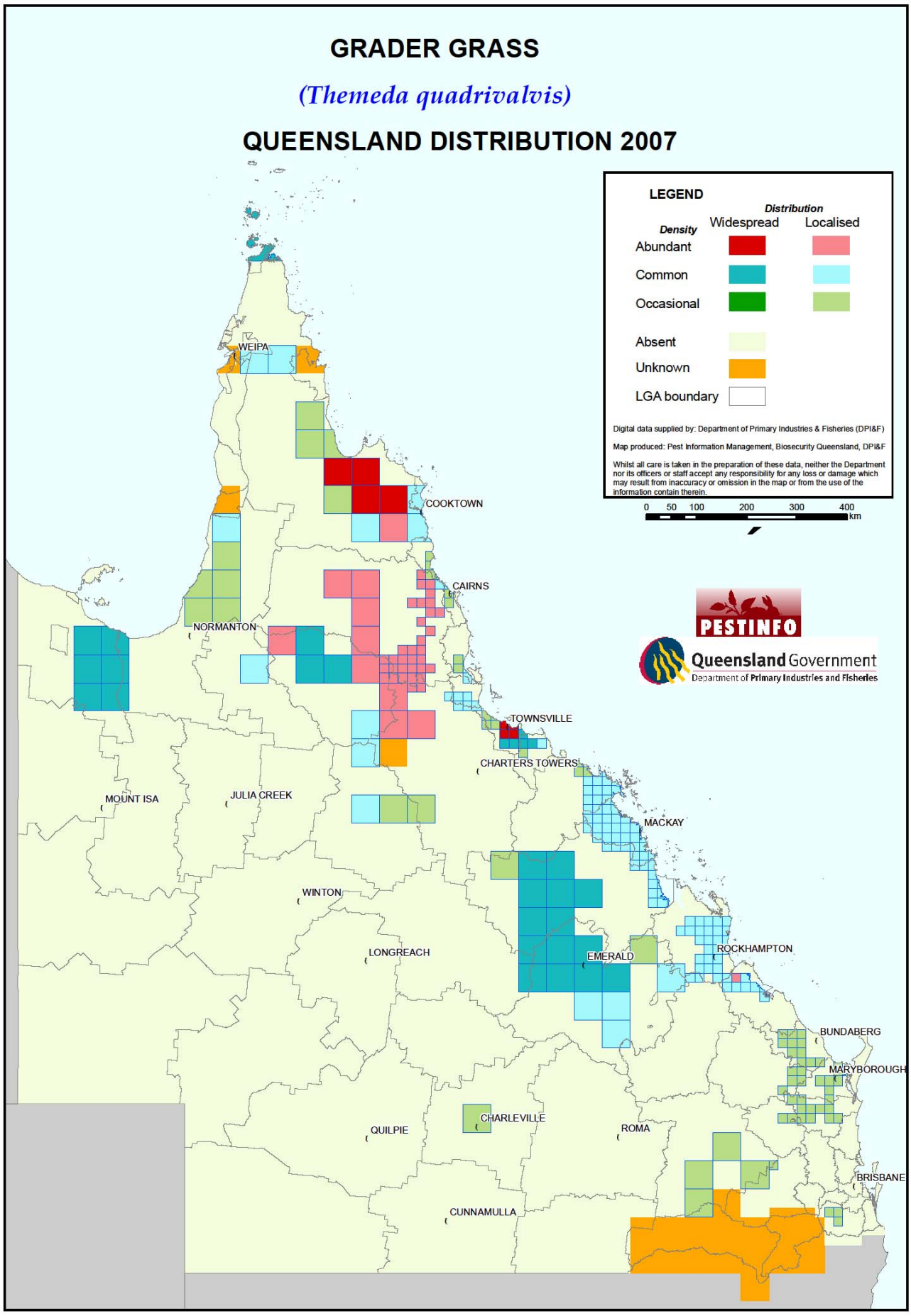
**Obstacles:**
Large quantities of traffic (via tourists and stock movements) and stock feed entering Shire that could easily be contaminated, longevity of seed, spreads rapidly, lack of people in the Shire who can accurately identify Grader Grass.

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Educate Landholders on the Pest potential of Grader Grass | BSc, BQ, stakeholders | Ongoing |
| 2. Landholders and Pest Management Officer to monitor properties and roadsides for presence of Grader Grass. | LH, BSC, stakeholders | Ongoing |
| 3. Pest Management Office to be notified of all suspect plants. BQ to assist with positive identification and advise on control strategy | BSC, LH, BQ | Ongoing |
| 4. Provide best practice control information to landholders | BSC, BQ, SGC | Ongoing |
| 5. Opportunistic mapping of Grader Grass infestations in shire | BSC, LH, stakeholders | Ongoing |
| **6.** Communicate with DTMR to identify and record sightings on roadsides | BSC, DTMR, LH | Ongoing & at GCPTF meetings |
| **7.** Provide advice on agisted cattle and equipment movements | BSC, LH | Ongoing |
| 8. Educate Landholders on the importance of good property hygiene | BSC, BQ, LH | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.


GRADER GRASS
(Themeda quadrivalvis)
QUEENSLAND DISTRIBUTION 2007
LEGEND
Distribution
Density
Widespread
Localised
Abundant
Common
Occasional
Absent
Unknown
LGA boundary
Digital data supplied by: Department of Primary Industries & Fisheries (DPI&F)
Map produced: Pest Information Management, Biosecurity Queensland, DPI&F
Whilst all care is taken in the preparation of these data, neither the Department nor its officers or staff accept any responsibility for any loss or damage which may result from inaccuracy or omission in the map or from the use of the information contain therein.
0 50 100 200 300 400
km
PESTINFO
Queensland Government
Department of Primary Industries and Fisheries
WEIPA
COOKTOWN
CAIRNS
NORMANTON
TOWNSVILLE
CHARTERS TOWERS
MOUNT ISA
JULIA CREEK
MACKAY
WINTON
LONGREACH
EMERALD
ROCKHAMPTON
BUNDABERG
MARYBOROUGH
CHARLEVILLE
QUILPIE
ROMA
BRISBANE
CUNNAMULLA

# 12. GIANT RAT'S TAIL GRASS (Sporobolus pyramidalis & S. natalensis)

| | Achievability | Priority |
|---|---|---|
| | 1 | High |

**Declaration Category – Plant 2**

**Description:**

Upright, vigorous perennial grasses which grow to 1.7m tall and have tough leaves. Seed heads grow to 40cm long and to 3 cm wide. They change shape from a 'rat's tail' spike when young to an extended pyramid shape from flowering through to maturity. Giant rat's tail is taller and more robust than native *Sporobolus* spp. and has denser seed heads. Giant rat's tail is a declared plant. A native of Africa, it was introduced to Queensland in contaminated pasture seed during the 1960s.

**Impact:**

It is an aggressive invader of disturbed or degraded pastures and its seeds can survive for a number of years in the soil. The plant is virtually unpalatable when mature and its presence severely reduces the carrying capacity of any infested pasture. It is difficult to control and precautions need to be taken when moving stock or machinery from infested areas. Giant rat's tail is not known to occur in the north-west, but it has significant potential to be a problem in the higher-rainfall areas associated with the Gulf coastline. Any sightings of the plant should be reported to BQ.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • To keep out of the Burke Shire | • No infestations in shire. |

**Obstacles**: Lack of people able to identify this plant within the shire.

| **Actions** | **By Whom** | **When** |
|---|---|---|
| 1. Target awareness exercises in community and identify suspect plants | BSC, stakeholders | Ongoing |
| 2. Pest Management Officer to be familiar with the plant for identification | BSC | Ongoing |
| 3. Educate landholders on the pest potential, identification & treatment of Giant Rat's Tail Grass | BSC, BQ, SGC, Stakeholders | Ongoing |
| 4. GPS and record locations and density | BSC, BQ, SGC, Stakeholders | Ongoing |
| 5. Communicate with DTMR to identify and record sightings | BSC | Ongoing |
| 6. Liaise with neighbouring local governments about distribution and spread | BSC | Ongoing & at GCPTF meetings |

**Pest Monitoring Process:**

Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

Resources

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required

# 13. LEUCAENA
# *(Leucaena leucucephala )*

| | Achievability | Priority |
|---|---|---|
| | 1 | Low |

**Declaration Category – Nil**

**Description:**

Dense shrub or tree to 6m tall. Leaves consist of six to nine pairs of pinnae, each with 13 to 21 pairs of small leaflets. Cream to white flowers occur in dense, globular heads, 1-2cm across and in groups of two to six. Flat, brown, papery pods have thickened edges, contain 8 to 18 seeds, grow 10-20cm long and 1-2cm wide, and hang down in groups of 5 to 20. Leucaena has been introduced as a productive tropical fodder tree. Leaves of the plant are highly nutritious, but poisoning can occur if large quantities are made available to non-ruminants (particularly horses) or ruminants that lack the kinds of lacteria necessary to break down the toxin mimosine. Leucaena has demonstrated weed potential in some drainage lines where thickets quickly grow out of browsing height.

Two main subspecies of the plant occur. Giant leucaena *(Leucaena leucocephala* subsp. *Glabrata)* is erect, less branched and hairless. It is more palatable and produces less seed, so is the more appropriate subspecies to consider if planting leucaena. The whole leaves are >19cm long and >12cm wide, leaflets are 16-21mm long, flower heads are >18mm across, and pods are 12-19cm long and 18-21mm wide.

Common leucaena *(Leucaena leucocephala* subsp. *leucocephala)* is a prolific seeder and is often considered a weed. It is shrubby, much-branched and shorter. The shoots, leaves and pods have a downy covering. Leaves are <20cm long and <12cm wide, leaflets are 9-13mm long, flower heads are 13-17mm across, and pods are 9-13cm long and 13-18mm wide.

**Impact:**

Leaves of the plant are highly nutritious, but poisoning can occur if large quantities are made available to non-ruminants (particularly horses) or ruminants that lack the kinds of lacteria necessary to break down the toxin mimosine. Leucaena has demonstrated weed potential in some drainage lines where thickets quickly grow out of browsing height.

Dangerous to horses and potential to cause problems in drainage areas.

**Distribution:**

Introduced.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| • Keep under control in Burke Shire | • Small infestations in shire. |

**Obstacles**:

Lack of knowledge for people able to identify this plant within the shire and unknown effect the plant can have on non-ruminant animals, especially horses.

| **Actions** | **By Whom** | **When** |
|---|---|---|
| 1. Monitor, awareness exercises & identify suspect plants | BSC | Ongoing |
| **2.** Pest Management Officer to inspect town area and arrange removal of plants on public land | BSC | Councils Monthly newsletter |
| **3.** Educate landholders on the Pest potential of Leucaena and its threat to non-ruminant animals. | BSC, LH | |

**Resources :**

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required

# 14. DINGOES (*Canus lupus dingo*) WILD DOGS (*Canis familiaris*)

| | Achievability | Priority |
|---|---|---|
| | 2 | HIGH |

**Declaration Category – Animal 2**

**Description:**
Dingoes are a primitive dog related to wolves and coyotes. The dingo was not part of the ancestral fauna of Australia and, though its origins are not clear, it is thought to have arrived in Australia 3,500 to 4,000 years ago. It is the largest mammalian carnivore remaining in mainland Australia, and as such fills an important ecological niche. Yellow and black-tan are the dominant coat colours, though dingoes can vary from pure white to black. It is very difficult to distinguish between dingoes and hybrids. Broken colours – e.g. brindling and patchiness in the normally pure white feet and chest patch, suggest the presence of domestic genes. Dingoes have a more heavily boned skull and larger teeth (especially the canine) than domestic dogs of similar size. Closer to settled areas, a greater number of feral domestic dogs produce a generally crossbred population.

Dingoes have only one breeding season per year. After a nine-week gestation, 4-6 pups are born. Pups are suckled for 4-6 weeks and generally weaned at 4 months. Independence occurs between 6 and 12 months of age.
.
**Control methods:** A planned strategy that uses a combination of trapping, shooting, fencing and poison baiting, as well as considering dingo behaviour, will enable effective management.

**Impact:**
On grazing country, dingoes can harass, injure or kill calves. Dingoes are also vectors of diseases such as distemper and parvovirus, and parasites. They could pose a serious risk if the exotic disease rabies was introduced to Australia.

| **Strategic Objective:** | **Success Indicator:** |
|---|---|
| Reduce numbers to below economic threshold, i.e. not causing economic losses | Reports of impact are infrequent |

**Obstacles**: Damage assessment

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Encourage coordinated baiting programs | BSC, LH | March; August<br>April/ May;<br>September/October |
| 2. Raise public awareness of the impacts of wild dogs and their control | BSC, BQ, LH | Ongoing |
| 3. Council to coordinate timing of biannual baiting program with adjoining Councils through BQ | BSC, stakeholders | Biannually |
| 4. Council to notify all stations of biannual baiting programs and encourage maximum participation across the shire; baiting outside program is available on pay-for-service basis outside these times at cost | BSC, LH, BQ | Biannually |
| 2. Assist Landholders with Permits to obtain alternative control products. | BSC | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

**Resources:**
Annual Allocation from Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.

# **15**. PIGS
# (*Sus scrofa*)

| | **Achievability** | **Priority** |
|---|---|---|
| | 2 | High |

**Declaration Category – Animal 2**

**Description:**
Introduced to Australia by early settlers, accidental and deliberate releases of pigs resulted in the wild (feral) populations. Feral pigs are more like their Eurasian cousins than domestic pigs. Colouring is usually black, buff or spotted black and white. Juveniles are often striped. Growth is similar to domestic pigs, though environmental conditions may stunt development. Their main requirements are water, food and cover. Pigs are nocturnal, and camp during the day under cover wherever possible. They are omnivorous (eat both plants and animals) and can have a home range of 5-50 square kilometres. Under favourable conditions, breeding can occur throughout the year and sows can produce two weaned litters (on average 6 piglets per litter) every 12-15 months, depending on food availability. This gives pigs the ability to recover quickly from management programs.

Control methods: Control needs to be carried out over a large area due to the big home range of pigs. 70% of the population should be removed each year to offset reproduction rate.
There are four basic methods of feral pig control: *trapping, poisoning, hunting and fencing.*
*Trapping* is most effective in areas of high conservation value as traps are relatively safe for non-target species. There are several trap designs, but all are principally steel mesh with a one-way gate. Free-feeding prior to activating traps is an essential prerequisite to successful trapping. Trapping in drier parts of the Shire is best towards the end of the dry.
*Poisoning*: 1080 is recommended. Phosphorus-based poisons are available but not recommended as they are unnecessarily inhumane. Free feeding with un-poisoned bait is the most important step in effective poisoning campaigns. Need 3 or 4 properties to be involved in a poisoning campaign to be effective.
*Shooting and the use of dogs*: Helicopter shooting is effective in areas where pigs exist in fairly high numbers and are visible from the air. Ground shooting is not effective unless it is extremely intense on a small, isolated but accessible pig population. Trained dogs may be useful to flush out the last few pigs in this situation, however dogging is not an effective pig control technique in the wet tropics – it changes pig behaviour, disrupts trapping programs and cannot be used in conjunction with poisons.
*Fencing:* Though an expensive option, fences can offer effective pig control on flat land. Need very high voltage, earth return and 5 wires backed by a netting fence and a live wire at the bottom. (Wallabies do dig under the fence and these are followed by pigs.) Effective control when used with trapping.

**Impact:** Feral pigs damage crops, stock, property, natural habitat (through trampling, rooting for ground parts of plants and invertebrates and wallowing) and native wildlife (through eating eggs as well as predation on, competition with or disturbance of a range of native animals, and destroying habitat). They cause an economic loss to various industries and dig up pasture areas. One of the main potential problems in the Burke Shire is that pigs transmit disease and could spread exotic diseases such as foot and mouth disease if this was introduced to Australia through Cape York. Diseases carried which are likely to affect people are: Sparganosis (a parasite that can affect the muscles of humans); Brucellosis (a bacterial disease which causes severe illness, undulant fever and possible infertility); Melioidosis (a serious bacterial disease which causes abscesses); Leptospirosis (a serious illness which causes very high temperatures, kidney trouble and jaundice) and Q Fever.

| | |
|---|---|
| • **Strategic Objective:** Reduce numbers to below economic threshold, i.e. not causing economic losses, environment or social impacts | • **Success Indicators:** A reduction in environmental and stock damage/loss |

**Obstacles:**
Cost of control, large distances, freezer boxes often closed (no market), need a constant supply of bait material for trapping

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Landholders to monitor pig numbers. | LH | On-going |
| **2.** Encourage landholders to bait for Feral Pigs in conjunction with annual Dingo / Feral Dog baiting programs | BSC, BQ, LH, stakeholders | Bi-annually in April/May and September/October |

| | | |
|---|---|---|
| 3. Educate landholders on the environmental impacts of Feral Pigs and possible control options | BSC, BQ | On-going |
| 4. Encourage Landholders to utilise commercial pig harvesters when available | LH, BSC, stakeholders | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

**Resources:**

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – Work Program

# 16. FERAL CATS (*Felis catus*)

| | Achievability | Priority |
|---|---|---|
| | 2 | LOW |

**Declaration Category – Animal 2**

**Description:**
Cats probably arrived in Australia with the first white explorers and since then have adapted to life in many different habitats. The term feral applies to those animals which do not live closely with or depend on humans. There are also semi-domestic rural cats and stray urban cats, which have some degree of dependency on humans, and domestic cats that roam.
Feral cats are able to increase numbers quickly under favourable conditions – female cats have three litters per year with an average of five kittens per litter. Domestic cats are continuously adding to the stray and feral cat population numbers (a cat's status is not constant – an owned cat may become feral). In urban areas, some feral cats are abandoned strays that may interbreed with household pet cats that are allowed by their owners to roam. Feral cats survive on native wildlife, especially a wide range of birds and ground-dwelling mammals and reptiles.

**Impact:**
Cats kill many different species of wildlife in large numbers. The domestic cat population continually replenishes and increases the feral cat population. Roaming pet cats also prey on native wildlife, especially birds and ground-dwelling mammals and reptiles. In the community, stray, feral and roaming pet cats can all have the following additional impacts: excessive noise; fighting and spread of disease both between cats and potentially to humans (e.g. unvaccinated, entire animals); odour / diggings in gardens.

| **Strategic Objective:** | **Success Indicators:** |
|---|---|
| • To reduce feral cat numbers, particularly where they have or could have significant environmental or social impacts | • Decrease in feral cat populations. |

**Obstacles:**
Attitude of residents that allows owned cats to roam freely in the day and night. Reluctance of owners to de-sex cats. Lack of controls on numbers and movements of cats. Expense of dealing with the stray / feral cat problem.

| **Actions:** | **By Whom** | **When** |
|---|---|---|
| 1. Educate public on responsible cat ownership; | BSC | Regular information updates |
| 2. Implement new Cats and Dogs Legislation which requires registration of all cats | BSC | By December 2010 |
| 3. Provide cat traps to public on request | BSC | Cat traps are available on request |
| 4. Raise public awareness of predation by feral cats | BSC, BQ, SGC, stakeholders | Ongoing |

**Pest Monitoring Process:**
Circulate Landholders with questionnaire annually as part of Corporate Planning process – June/July.

**Resources:**

Annual Allocation from the Burke Shire Council Operational Plan – Wages; Operating funds (chemical etc); Supervision Costs; Equipment and Vehicle – As required.

# Part D: IMPLEMENTATION, MONITORING AND REVIEW

## COORDINATION OF IMPLEMENTATION

The Burke Shire Pest Management Working Group will continue to be a forum for problem-solving, advice and assistance, as well as fulfilling the monitoring and review role outlined below.

### MONITORING AND REVIEW

- The Pest Management Working Group will monitor and review progress against stated success indicators for the implementation of this plan annually.
- In 2014 the Burke Shire Pest Management Plan will be comprehensively reviewed in accordance with the Act and Regulations.

### ACRONYMS

| | |
|---|---|
| BQ | Biosecurity Queensland |
| BSC | Burke Shire Council |
| DERM | Department of Environment & Resource Management |
| LH | Landholders |
| PMO | Pest Management Officer (Ranger - Burke Shire Council) |
| GCPTF | Gulf Catchments Pest Taskforce |
| SGC | Southern Gulf Catchments |
| DTMR | Department of Transport & Main Roads |
| | |
| | |
| | |

### REFERENCES

Information and facts contained in the Burke Shire Pest Management Plan were obtained from the following sources:


- *Land Protection (Pest and Stock Route Management) Act 2002*
- *Land Protection (Pest and Stock Route Management) Regulation 2003*
- *Department of Natural Resources & Mines – Resource Kit for developing local government area pest management plans (hard copy & CD)*
- *Burke Shire Council Local Government Area Pest Management Plan 2004-2009*
- *Smith, Nicholas: Weeds of the Wet/Dry Tropics of Australia – a Field Guide 2002: Environment Centre NT*


### APPENDICES

1. Classes of declared pests in Queensland
2. Map of Burke Shire local government area
3. Maps indicating areas of known declared pest plant species

# Appendix 1: Classes of Declared Pests

**Information Source:** ***Land Protection (Pest and Stock Route Management) Regulation 2003***

**Class 1**

**General Description**

A Class 1 pest is one not commonly present in Queensland which, if introduced, would cause an adverse economic, environmental, or social impact. Class 1 pests established in Queensland are subject to eradication from the state. Landholders must take reasonable steps to keep land free of Class 1 pests. Other powers of the Act apply. For example, Class 1 animals can be kept only under permit.

**Actions for this class of pests:**

- Assist prevention of entry at national barriers
- Do not permit entry to Queensland of Class 1 plants
- Permit entry of Class 1 animals to Queensland only for specific uses, such as keeping in zoos
- Prohibit propagation, cultivation, distribution, and sale of pest plants in the state
- Increase public awareness of the risks posed by these pests
- Survey for new naturalisations
- Develop and implement action plans for the eradication of these pests, if found
- Quarantine infested lands under emergency pest notices
- Investigate more cost-effective methods of control
- Enforce prohibition on the keeping of pests with confiscation, destruction, or euthanasia
- Include cooperation with state eradication plans in local government area pest management plans
- Monitor the effectiveness of eradication programs
- Prohibit the selling of contaminated "things" (e.g. fodder, machinery, water or stock)

| CLASS 1 PEST PLANTS | CLASS 1 PEST ANIMALS |
|---|---|
| • Acacias non-indigenous to Australia *(Acacia spp. Other than A. nilotica and A. farnesiana)*<br>• Alligator weed *(Alternanthera philoxeroides)*<br>• Anchored water hyacinth *(Eichhornia azurea)*<br>• Badhara bush *(Gmelina elliptica)*<br>• Bitou bush *(Chrysanthemoides monilifera subsp. Rotundata)*<br>• Bridal creeper *(Asparagus asparagoides)*<br>• Chilean needle grass *(Nassella neesiana)*<br>• Christ's thorn *(Ziziphus spina-christ)*<br>• Eurasian water milfoil *(Myriophyllum spicatum)*<br>• Floating water chestnuts *(Trapa spp.)*<br>• Gorse *(Ulex europaeus)*<br>• Honey locust *(Gleditsia spp., including cultivars and varieties)*<br>• Horsetails *(Equisetum spp.)*<br>• Hygrophila *(Hygrophila costata)*<br>• Kochia *(Kochia scoparia, syn. Bassia scoparia)*<br>• Koster's curse *(Clidemia hirta)*<br>• Lagarosiphon *(Lagarosiphon major)*<br>• Limnocharis *(Limnocharis flava)*<br>• Madras thorn *(Pithecellobium dulce)*<br>• Mesquites *(all Prosopis spp. And hybrids other than P. glandulosa, P. pallida and P. velutina)*<br>• Miconia *(Miconia spp.)* | **All mammals, reptiles, and amphibians are Class 1 pests, except:**<br>**1. Class 2 declared pest animals**<br>**2. mammals, reptiles, and amphibians indigenous to Australia, including marine mammals of the orders Pinnipedia, Sirenia, and Cetacea**<br>**3. The following non-declared animals:**<br>• Alpaca *(Lama pacos)*<br>• Asian house gecko *(Hemidactylus frenatus)*<br>• Axoloti *(Ambystoma mexicanum)*<br>• Bali cattle *(Bos javanicus and B.*<br>• *sondaicus)*<br>• Bison or American buffalo *(Bison bison)*<br>• Black rat *(Rattus rattus)*<br>• Camel *(Camelus dromedarius)*<br>• Cane toad *(Bufo marinus)*<br>• Cattle *(Bos spp.)*<br>• Chital *(Axis)* deer *(Axis axis)*<br>• Domestic cat *(Felis catus)*<br>• Domestic dog *(Canis familiaris)*<br>• Domestic goat *(Capra hircus)*<br>• Domestic pig *(Sus scrofa)*<br>• Donkey *(Equus asinus)*<br>• European hare *(Lepus capensis)*<br>• Fallow deer *(Dama dama)* |

| | |
|---|---|
| • Mikania vine *(Mikania spp.)*<br>• Mimosa pigra *(Mimosa pigra)*<br>• Myrica *(Myrica faya)*<br>• Perusian primrose *(Ludwigia peruviana)*<br>• Piper *(Piper aduncum)*<br>• Red Sesbania *(Sesbania punicea)*<br>• Salvinias *(Salvinia spp. Other than s. molesta)*<br>• Senegal tea *(Gymnocoronis spilanthoides)*<br>• Serrated tussock *(Nassella trichotoma)*<br>• Siam weed*(Chromolaena odorata)*<br>• Thunbergia*(Thunbergia annua, T. fragrans and T. laurifolia)*<br>• Water soldiers *(Stratiotes aloides)*<br>• Willow *(Salix spp. Other than S. babylonica, S. x calodendron, S. x reichardtii, and S. chilensis, syn. S. humboldtiana)*<br>• Witch weeds *(Striga spp., other thn naïve species)* | • Guanicoe *(Lama guanicoe)*<br>• Guinea pig *(Cavia porcellus)*<br>• Hog deer*(Axis porcinus)*<br>• Horse *(Equus caballus)*<br>• House mouse *(Mus musculus)*<br>• Llama *(Lama glama)*<br>• Mule *(Equus caballus x E. asinus)*<br>• Red deer *(Cervus elaphus)*<br>• Rusa deer *(Cervus timorensis)*<br>• Sambar deer *(Cervus unicolor)*<br>• Sewer rat *(Rattus norvegicus)*<br>• Sheep *(Ovis aries)*<br>• Wapiti deer *(Cervus canadensis)*<br>• Water buffalo *(Bubalus bubalis)*<br>• White-tail deer *(Odocoileus virginianus)* |

**Class 2**

**General description**

Class 2 pests are established in Queensland and have, or could have, an adverse economic, environmental or social impact. Their management requires coordination and they are subject to existing programs. They may also be new pests requiring state coordination, and subject to local government, community or landholder-led programs. Landholders must take reasonable steps to keep land free of Class 2 pests. Other powers of the Act apply.

**Actions for this class of pest:**

- Increase public awareness of the impacts of these pests
- Prohibit their propagation, cultivation, distribution, and sale in the state
- Survey established infestations to help develop strategies to manage or reduce local and regional spread
- Survey new infestations to help develop strategies to contain or reduce the spread of the pest at local and regional levels, or to eradicate
- Coordinate management of the pest on infested lands
- Quarantine infested lands under emergency pest notices in exclusion areas
- Develop and implement hygiene procedures and practices to prevent spread from infested areas
- Investigate cost-effective and efficient methods of control
- Enforce prohibition on the keeping of pests with confiscation, destruction or euthanasia
- Include coordinated local and regional management in local government area pest management plans
- Monitor the effectiveness of control plans in local government areas
- Prepare and implement a strategic management plan
- Permit entry of pests to exclusion areas only for certain purposes (e.g. research or education)
- Prohibit the selling of contaminated 'things' unless under a vendor declaration (e.g. notifiable species)

| CLASS 2 PEST PLANTS | CLASS 2 PEST ANIMALS |
|---|---|
| • African boxthorn *(Lycium ferocissimum)*<br>• American rat's tail grass *(Sporobolus jacquemontii)*<br>• Annual ragweed *(Ambrosia artemisifolia)*<br>• Bellyache bush *(Jatropha gossypiifolia)*<br>• Cabomba *(Cabomba spp.)*<br>• Chinee apple *(Ziziphus mauritiana)*<br>• Fireweed *(Senecio madagascariensis)*<br>• Giant Parrramatta grass *(Sporobolus fertilis)*<br>• Giant rat's tail grass *(Sporobolus pyramidalis and S.natalensis)*<br>• Giant sensitive plant *(Mimosa invisa)*<br>• Groundsel bush *(Baccharis halimifolia)*<br>• Harrisia cactus *(Eriocereus spp.)*<br>• Hymenachne *(Hymenachne amplexicaulis)*<br>• Mesquites *(Prospois glandulosa, P.pallida and P.velutina)*<br>• Mother-of-millions *(Bryophyllum delagoense and B. daigremontianum x B. delagoense, syn. B. tubiflorum and B. diagremontianum x B. tubiflorum)*<br>• Parkinsonia *(Parkinsonia aculeata)*<br>• Parramatta grass *(Sporobolus africanus)*<br>• Parthenium *(Parthenium hysterophorus)*<br>• Pond apple *(Annona glabra)*<br>• Prickly acacia *(Acacia nilotica)*<br>• Prickly pear *(Opuntia spp. Other than O. ficus-indica)*<br>• Rubber vine *(Cryptostegia grandiflora)*<br>• Salvinia *(Salvinia molesta)* | • Australian plague locust *(Chortoicetus terminifera)*<br>• Cat, other than a domestic cat *(Felis catus)*<br>• Dingo *(Canis familiaris dingo)*<br>• Dog, other than a domestic dog *(Canis familiaris)*<br><br>• European fox *(Vulpes vulpes)*<br>• European rabbit (domestic and wild breeds) *(Oryctolagus cuniculus)*<br>• Feral pig *(Sus scrofa)*<br>• Goat, other than a domestic goat *(Capra hircus)*<br>• Migratory locust *(Locusta migratoria)*<br>• Spur-throated locust *(Austracris guttulosa).* |

| | |
|---|---|
| • Sicklepods *(Senna obtusifolia, S. hirsute and S. tora)*<br>• Thunbergia *(Thunbergia grandiflora)*<br>• Tobacco weed *(Elephantopus mollis)*<br>• Water hyacinth *(Eichhornia crassipes)*<br>• Water lettuce *(Pistia stratiotes).* | |

**Class 3**

**General Description**

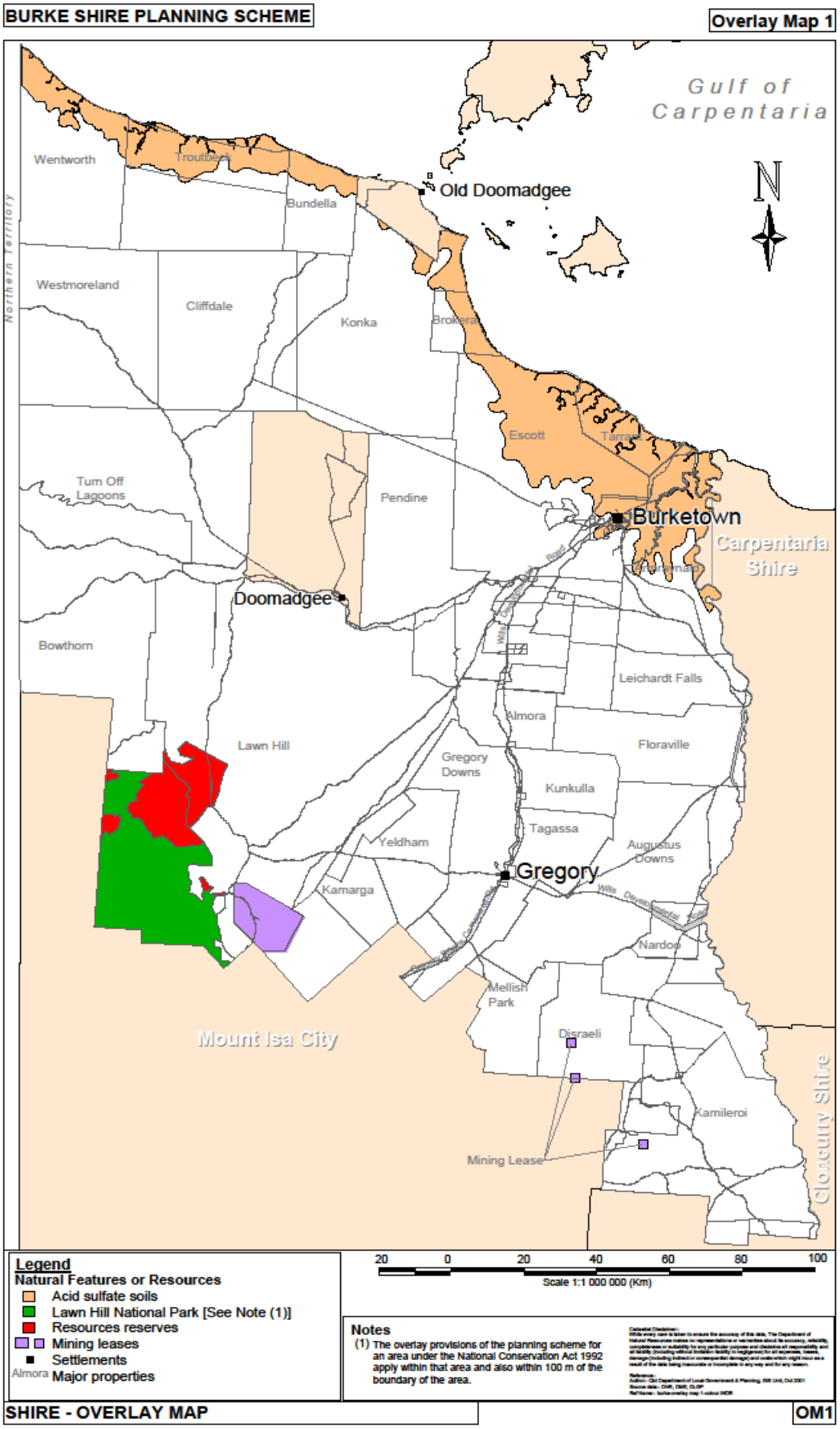
These are plant species are established in Queensland which have, or could have, an adverse economic, environmental, or social impact. Their impact is primarily environmental. A pest control notice for Class 3 pests can be issued only for land that is, or is adjacent to, an environmentally significant area. Only some of the other powers of the Act apply.

**Actions for this class of pest:**

- Prohibit their propagation, cultivation, distribution and sale in the state
- Increase public awareness of the impacts of the pests
- Survey environmentally significant areas to help develop effective pest management strategies
- Develop pest management strategies for high-value conservation sites. (It should be possible to adopt strategies based on existing Class 3 pests for potential pest species)
- Keep a register of environmentally significant areas
- Develop hygiene practices tailored to sites, buffer regions and seed sources
- Investigate cost-effective and efficient methods of control
- Provide information on methods of revegetating or rehabilitating sites to prevent invasion or re-invasion
- Monitor the effectiveness of control plans in environmentally significant areas
- Ensure that holders of land that is, or is adjacent to, an environmentally significant area are aware of their responsibilities
- Include control of Class 3 pests in local government area pest management plans.

**CLASS 3 PEST PLANTS**

- African fountain grass *(Pennisetum setaceum)*
- African tulip tree *(Spathodea campanulata)*
- Aristolochia or Dutchman's pipe *(Aristolochia spp., other than native species)*
- Asparagus fern *(Asparagus aethiopicus 'Sprengeri', A. africanus and A. plumosus)*
- Athel pine *(Tamarix aphylla)*
- Balloon vine *(Cardiospermum grandiflorum)*
- Blackberry *(Rubus anglocandicans, R. fruticosus agg.)*
- Broad-leaved pepper tree *(Schinus terebinthifolius)*
- Camphor laurel *(Cinnamomum camphora)*
- Captain Cook Tree *(Thevetia peruviana)*
- Cat's claw vine *(Macfadyena unguis-cati)*
- Chinese celtis *(Celtis sinensis)*
- Harungana *(Harungana madagascariensis)*
- Lantana *(Lantana spp.)*
- Madeira vine *(Anredera cordifolia)*
- Pencil willow *(Falix chilensis, syn. S. humboldtiana)*
- Privets *(Ligustrum lucidum and L. sinense)*
- Purple rubber vine*(Cryptostegia madagascariensis)*
- Singapore daisy *(Sphagneticola trilobata)*
- Yellow bells *(Tecoma stans)*


BURKE SHIRE PLANNING SCHEME
Overlay Map 1
Gulf of Carpentaria
N
Northern Territory
Wentworth
Troutbeck
Bundella
Old Doomadgee
Westmoreland
Cliffdale
Konka
Brokera
Escott
Turn Off Lagoons
Pendine
Burketown
Carpentaria Shire
Doomadgee
Bowthorn
Leichardt Falls
Almora
Lawn Hill
Floraville
Gregory Downs
Kunkulla
Tagassa
Yeldham
Augustus Downs
Gregory
Kamarga
Nardoo
Mellish Park
Mount Isa City
Disraeli
Kamileroi
Mining Lease
Cloncurry Shire
Legend
Natural Features or Resources
Acid sulfate soils
Lawn Hill National Park [See Note (1)]
Resources reserves
Mining leases
Settlements
Almora Major properties
20 0 20 40 60 80 100
Scale 1:1 000 000 (Km)
Notes
(1) The overlay provisions of the planning scheme for an area under the National Conservation Act 1992 apply within that area and also within 100 m of the boundary of the area.
SHIRE - OVERLAY MAP
OM1