Maranoa Regional Council Pest Management Plan

2012-2016

Adopted by Council 23 August 2013

1.0 SUMMARY

Maranoa Regional Council Pest Management Plan 2013-2017has been developed for the benefit of this community. The expertise of many local stakeholders (including local and state government agencies, industry groups, environmental representatives, community groups and individual landholders) has been drawn on in planning for the cooperative management of pests on all land within the shire boundaries.

The key objectives of the plan are to:

- Reduce the economic, environmental and social impacts of pests within the Maranoa Regional Council area.
- Improve the use of resources and expertise available for managing pests within the Council area.
- Prevent the establishment of new pests and minimize the spread of current pests.
- Improve the protection of environmentally significant areas.

This plan has been developed in accordance with the requirements of the *Land Protection (Pest and Stock Route Management) Act 2002* and will serve as a guide to all local land managers.

2.0 MISSION STATEMENT

Maranoa Regional Council's vision is: "to implement and administer Council's regulatory functions in a fair and consistent manner and in the interest of the community as a whole"

To help achieve this Maranoa Regional Council has developed the "***Maranoa Regional Council Pest Management Plan 2013-2017***.

ABBREVIATIONS

MRC	Maranoa Regional Council
LLO	Local Law Officers
BSQ	Bio Security Officer with Bio Security Queensland
DERM	Department of Environmental Resource Management
DEEDI	Department of Employment, Economic Development and Innovation
QMDC	Queensland Murray-Darling Committee
MBCA	Maranoa Balonne Catchment Management Association
PWG	Pest Working Group within Maranoa Regional Council
SRN	Stock Route Network
SWNRM	South West Natural Resource Management - Charleville
WONS	Weeds of National Significance

DEFINITIONS

1080	Sodium fluoroacetate poison for vertebrate pests
Declared Animal	Animals that are declared pests under the *Land Protection (Pest and Stock Route Management) Act 2002*. Land managers are responsible for the control of declared animals on their land.
Pest Animal	An exotic animal, causing detrimental impacts on the environment, industry or community activities. A pest animal maybe a declared animal. Pest animals are managed for impact reduction, usually through some form of population control.
Pest info	State wide weed and pest animal mapping database.
Problem Animal	An individual or local population of native animals that sometimes conflict with local or immediate human activities. Native species are generally protected under the *Nature Conservation Act 1992* and are managed for conservation goals. Control is undertaken by authorised/accredited personnel or under permit.
Rapid Response Agreement	An agreement between neighbouring Local Governments to ensure a framework is in place to rapidly coordinate resources across a region to respond to critical outbreaks of pest animals and or plants, to help prevent infestation of neighbouring regions. Gives stakeholders and authorities increased capacity to deal with critical outbreaks of identified pests.

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APPENDIX

1.0 INTRODUCTION

The *Land Protection (Pest and Stock Route Management Act) 2002* requires local government to develop, adopt and implement local area pest management plans as part of an integrated planning framework for managing pest plants and animals across Queensland.

Maranoa Regional Council's ***Pest Management Plan 2012 – 2016*** has been developed through the review of past Council Pest Plans and in conjunction with a local community working group. It integrates with the Maranoa Community Plan, Council's Corporate and Operational Plans, State management strategies for pest animals and weeds, State guidelines, plans and other relevant environmental legislation.

1.1 BACKGROUND

Maranoa Regional Council covers an area of 58,830sq km that is home for approximately 13,000 people. The region maintains a proud and productive rural industry which in more recent years has been complimented with industrial expansion in the energy and gas sectors. The main agricultural industries within this region include beef cattle, sheep/wool, grain crops, cypress pine and wild game harvesting hat will be affected should control mechanisms not be implemented for pest plants and or animals.

Pest animals and plants are reported by the Department of Natural Resources & Mines (2004) as costing Queensland over $600 million annually in lost production and control costs. Effective pest management helps protect the urban and agricultural industries upon which the Maranoa Regional Council area relies, as well as, protect the environment and human health.

Pest animals have the potential to alter ecosystems, reduce primary industry productivity and profitability, seriously limit the long-term viability of natural and agricultural landscapes and can impact on human and animal health. A holistic approach must be adopted to achieve a harmonious balance.

Some economic and environmental impacts recorded for pest animals include:

- Direct predation
- Spread of disease
- Degradation of native habitat
- Destruction or damage to crops, pasture and livestock
- Compete for habitat, shelter and food resources with both domestic and native animal
- Social impact -reduction of economy – less people, less children, less services, reduction of finances

Pest plants compete with pasture species to reduce available grazing, plants may be toxic to stock (such as Mother-of-Millions), compete with crops for space, water and nutrients and in the case of aquatic pest plants can affect water quality and biodiversity within streams and wetlands. Pest plants also degrade natural vegetation and impact on biodiversity. Social impacts include effects on human health, recreation, safety and aesthetics.

1.1.1 Responsibility

Declaration under *the Land Protection (Pest and Stock Route Management) Act 2002* imposes a **legal responsibility** for control of declared pest animals and plants by **all landowners** on land under their management. A full list of declared plants and animals can be found on the Queensland Department of Environmental Resource Management website: www.derm.qld.gov.au

This Pest Management Plan has been developed to identify strategies and actions the Maranoa Regional Council intends to implement to manage pest plants and animals on lands under it's jurisdiction to fulfil it's obligations in accordance with the *Act*.

Individual landholders have the responsibility of stopping the spread of weeds on their land, minimising the introduction of new pests, monitoring pest species and their distribution, and observing hygiene measures and regulations. Under Section 77(1) of the *Act* a landowner must also take reasonable steps to keep their land free of class 1 and class 2 pests where "their land" includes;

- unfenced land comprising part of a road or stock route that adjoins or is within the owner's land
- other land that is fenced in with the owner's land
- the bed, banks and water of a watercourse on the owner's land, unless the owner holds a declared pest permit
- the bed, banks and water to the centre-line of a watercourse forming a boundary, or part of a boundary, of the owner's land.

The Department of Environment Resource Management and local government provide practical skill and technical information to assist.

Local Governments and other issuing entities may give an owner written notice (a "pest control notice") if a landowner does not comply with their obligations under the *Act*. This notice would include a reasonable action the owner must take against the pest within a stated reasonable period. A penalty could apply if such action stated in the 'notice' isn't undertaken.

1.1.2 Current Resources

Maranoa Regional Council employs six full time Officers, who are authorised to:

- Control pests on land under its control; and
- Administer and enforce the *Land Protection (Pest and Stock Route Management) Act 2002*, by monitoring pest infestations within the Shire.

These Officers' spend about 60% of their time on pest plant and animal management and about 30% on stock route management and 10% on urban animal control.

In previous years, local governments of the area have provided financial assistance for trails on parthenium biological control mechanisms, which has ceased at this time. However Council remains committed to working in collaboration with neighbouring Local governments and Catchment Management groups in the provision of educational material, additional spray units to landholders/managers for control of pest plants.

Maranoa Regional Council provides through the community benefit fund program, financial assistance to Wild Dog Control Groups within the Region for the implementation of coordinated management processes in their area. Such assistance is used for aeroplane hire and meat purchase in regional integrated baiting campaigns only.

A wild dog advisory group has been formed within the Region to provide leadership, and drive effective, efficient programs/actions that will integrate with neighbouring local governments. The aim of the group will be to:

- Develop new initiatives and strategies
- Set direction for Council wild dog programs and expenditure
- Work with other land owners and representatives from across the region

- Identify and target problem areas
- Educate and inform
- Achieve key outcomes for your community

1.2 PURPOSE

The purpose of the *Maranoa Regional Council Pest Management Plan 2010 – 2014* is to identify pest animal and plants that impact and threaten now and into the future of this region. Through planning to achieve an integrated partnership approach with this regions community, it is anticipated that resources and actions will be identified to meet goals of pest management principles. (Table One)

An annual action plan is incorporated and includes, program objectives, operational actions, current status of a pest, success measures and indicators, plus resources able to be allocated to the strategic management of each **high** priority pest identified in this Plan.

1.3 OBJECTIVES

The key objectives of this plan is to:

- Reduce the economic, environmental and social impacts of priority pests within the Maranoa Regional Council area.
- Partner with landholders and land managers to achieve cohesive control practices.
- Improve the use of resources and expertise available for managing pests within the Council.
- Prevent the establishment of new pests and minimize the spread of current pests.
- Improve the protection of environmentally significant areas.

1.4 SCOPE

The *Maranoa Regional Council Pest Management Plan 2012 - 2016* covers the entire land mass within the Maranoa Regional Council, including land owned or controlled by individuals, industry and or the state.

Species targeted within this Plan are listed in Section 3.0. The local distribution outlined in this section only relates to land within the Shire managed by Council and does not include freehold or leasehold land, national parks, state forests and other land managed by the state.

Table One

Principles of Pest Management

Principle	Description
Integration	Pest management is an integral part of managing natural resources, biodiversity and agricultural systems.
Public Awareness	Public awareness and knowledge of pests must be raised to increase the capacity and willingness of individuals to manage pests.
Commitment	Effective pest management requires a long-term commitment by the community, industry groups and government entities.
Consultation and partnership	Consultation and partnership arrangements between local communities, industry groups, State government agencies and local governments must be established to achieve a collaborative approach for pest management.
Planning	Pest management planning must be consistent at local, regional, state and national levels to ensure target priorities for pest management are identified at each level. Mapping, Budgeting, Personnel, Timeframe - must form segments of the planning phase.
Prevention	Preventative pest management is achieved by: 1. Preventing the spread of pests and viable parts of pests, especially by human activity; and, 2. Early detection and intervention to control pests.
Best Practice	Pest management must be based on ecologically and socially responsible pest management practices that protect the environment and the productive capacity of natural resources.
Improvement	Research about pest, and regular monitoring and evaluation of pest control activities, is necessary to improve pest management practices.

The relationship between these principles, desired outcomes and strategic actions are outlined in Section 2.0.

A number of other regional, state and national plans, strategies and policies have been developed to address pest management and related issues on a larger scale. The Maranoa Regional Council Pest Management Plan 2012 – 2016 was developed and will operate within these frameworks to achieve a collaborative approach to pest management. Documents that are significant to this Plan are listed in Table Two.

Scale	Natural Resource Management	Pest Management	Pest Species
National	• National Action Plan for Salinity and Water Quality • National Strategy for the Conservation of Australia's Biodiversity • National Guidelines and Principles for Rangeland Management • Environment Protection and Biodiversity Conservation Act	• National Weeds Strategy • Managing Vertebrate Pests – Principles and Strategies • Model Code of Practice for the Welfare of Animals – Feral Livestock Animals Destruction or Capture, Handling and Marketing	• Strategies for Weeds of National Significance (particularly Parthenium and Parkinsonia) • National Pest Animal SpeciesThreat Abatement Plans • National Management Strategy for Carp Control 2010 - 2014 • Australian Plague Locust Commission Strategic Plan
State	• Queensland Biodiversity, Conservation and Natural Resource Management Statement. • *Nature Conservation Act 1992* • *Water Act 2001* • *Environmental Protection Act 1994 (eg. control of Dingoes)* • *Transport Infrastructure Act 1994* • *Land Title Act 1994* • *Vegetation Management Act 1999* • *Animal Care and Protection Act 2001* • *Queensland Heritage Act 1992 (eg. managing pests in areas of cultural heritage)* • *Soil Conservation Act 1986* (eg. using non-invasive species to minimise soil loss) Agricultural and Veterinary Chemicals (Queensland) Act 1994 (eg. using pesticides appropriately)	• Queensland Weeds Strategy • Queensland Pest Animal Strategy • Control of Exotic Pest Fishes Strategy	• Queensland Locust Management Strategy • Queensland Mouse Management Strategy • Queensland Parthenium Strategy • Queensland Wild Dog Management Strategy • Queensland Rabbit Management Strategy

Table Two con't…..

Scale	Natural Resource Management	Pest Management	Pest Species
Regional and Catchment	• Regional Natural Resource Management Plan (Queensland Murray-Darling) • Maranoa Balonne Catchment Association Plan	• APEC Parthenium Strategy for Southern Queensland. •	• African Boxthorn • African Lovegrass • Blue Heliotrope • European carp • Feral cats • Feral Goats • Foxes • Giant Rat's Tail Grass • Harrisia Cactus • Lippia • Macropods • Mesquite • Mother of Millions • Noogoora burr • Parthenium weed • Pigs • Prickly Pear • Rabbits • Thickening native plant species • Water Lettuce • Wild Dogs • Prickly acacia/Parkinsonia/Rubber vine

Scale	Natural Resource Management	Pest Management	Pest Species
Local Government	• Community Plan 2010-2020 • Maranoa Regional Council Stock Route Management Plan • Maranoa Regional Council Corporate Plan. – 2009-2012 • Maranoa Regional Council Operational Plan 2009-2010 • Council of the Shire of Bendemere, Booringa Bungil, Roma and Warroo Planning Schemes	• Maranoa Regional Council Pest Management Plan	• Parthenium • Wild Dogs/Dingoes
Property	• Sub-catchment plans • Individual Property Plans • Environmental Management Systems (EMS's) • QPWS Park Plans •	• Ergon Energy • Telstra • Main Roads • Mining Company's Environmental Management Plans •	

1.5 STAKEHOLDER INPUT

All previous plans developed by five Councils now amalgamated into the Maranoa Regional Council area were reviewed and combined to produce an initial draft.

Maranoa Regional Council then established a working group to advise Council on the content of the revised Pest Management Plan in order to develop a collaborative approach to pest management. Stakeholders involved and their responsibilities in this process are outlined in the table below.

Stakeholders	Representative	Responsibility
Industry Organisations	Agforce	• Alignment of Maranoa Regional Council Pest Management Plan with agreed industry strategies, policies and guidelines.
Community		• Provide local knowledge. • Encourage community adoption of the Plan.
Aboriginal Groups	Bidjara Manindangie Iman	• Alignment of Maranoa Regional Council Pest Management Plan with State management strategies, policies and guidelines.
DEEDI - Bio Security Queensland	Mr Graham Hardwick Senior Officer	• Alignment of Maranoa Regional Council Pest Management Plan with State management strategies, policies and guidelines. • Provide local knowledge.
Environmental Protection Agency	Bernice Sigley Gareth Graham Peter Harrison	• Alignment of Maranoa Regional Council Pest Management Plan with State management strategies, policies and guidelines. • Provide Local Knowledge.
Landcare / Catchment Groups	Landcare Coordinator /Mitchell and District Landcare South West Natural Resource Management Group, Charleville Maranoa Balonne Catchment Management Group, Roma	• Alignment of Maranoa Regional Council Pest Management Plan with regional natural resource management plan objectives and outcomes.
Maranoa Regional Council	Bill Burke Ivan Gillies Greg Richardson Ray Thrupp Rhonda Abberton Doug Gillett Kay Crosby	• Provide Local Knowledge. • Identify Maranoa Regional Council direction and available resources.

Maranoa Regional Council	Cr. Jeff Watson Cr. Jan Chambers Cr. Tom Hartley Cr. Rob Loughnan	• Provide Local Knowledge. • Identify Maranoa Regional Council direction and available resources.
Adjoining Local Government	Balonne Western Downs Central Highlands	• Integrate and align adjoining Local Government Pest Management Plans

In addition to people involved on the working group many other key organisations and the Maranoa Regional Council community have been invited to comment on the draft during the consultation process outlined in Section 1.7. The key organisations include:

Agricultural Industry:
- Agforce

Service Industry:
- Ergon
- Queensland Rail
- Telstra
- Santos
- Origin
- QGC

Traditional Owner Groups:

Bidjarrara
Manindangie
Iman

Government Departments:
- Environmental Protection Agency (Queensland Parks &Wildlife Service)
- Department of Employment, Economic Development and Innovation
- Department of Local Government and Planning
- Local Government Association of Queensland
- Department of Main Roads
- Queensland Railway

Neighbouring Shires:
- Murweh Shire Council
- Paroo Shire Council
- Balonne Shire Council
- Banana Regional Council
- Western Downs Regional Council
- Central Highlands Regional council

Natural Resource Management Groups:
- Mitchell and District Landcare Group
- Maranoa Regional Council Catchment Management Association
- Queensland Murray Darling Committee
- Central Highlands

1.6 CONSULTATION PROCESS

The Maranoa Regional Council community were invited to comment on the Draft Plan from August – November 2010.

Notice of the plan was published in the Western Star Newspaper, Maranoa Mail and t Maranoa Regional Council web site.

Copies of the Draft Plan were sent to each of the Stakeholders listed in Section 1.7, inviting them directly to comment on the Plan.

1.7 REVIEW PROCESS

A major **review** of the Maranoa Regional Council's Pest Management Plan will be undertaken every **four years**, with necessary minor updates being made on an **annual** basis to reflect changes in resources, pest threats, legislation and/or policy.

2.0 DESIRED OUTCOMES, STRATEGIC ACTIONS AND SUCCESS INDICATORS

The *Maranoa Regional Council Pests Management Plan* will only achieve success through cooperative working relationship, processes and actions as nominated. Individual stakeholders on their own cannot achieve stipulated goals for this region.

- Stakeholders are informed, knowledgeable, and have ownership of weed and pest animal management.
- All stakeholders need to be committed too, and undertake coordinated management of weeds and pest animals.
- Reliable information to be sourced and made available as a basis for decision making process.
- Strategic directions are established, maintained, and owned by all stakeholders.
- The introduction, establishment, and spread of weeds and pest animals are prevented and/or minimised.
- Integrated systems for managing the impacts of established weeds and pest animals are developed and widely implemented.

Each desired outcome and associated strategic objectives, actions and success criteria are outlined in Sections 2.1 to 2.6.

2.1 Desired Outcome One:

Stakeholders are informed, knowledgeable and are committed to pest weed and animal management

State Principle:

- Public Awareness

Success Criteria:

- The extent to which appropriate information is available to stakeholders.
- How aware the community are of pests within the region and their impacts.
- How aware regional and state organisations are of pest management activities within Maranoa Regional Council area.
- The degree to which individuals and stakeholders pursue education and training.

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Awareness	To increase community, industry, agribusiness and government awareness of pests and their impacts.	Build partnerships with local Landcare and tourist groups to produce interpretative material which lists weeds identified within this Plan, their impact, a description and photo (using the "Pest Fact" information provided by the Department of Employment Economic Development and Innovation) and provide this information to: • All Rate payers • Owners / Drovers of cattle travelling or agisting within the region • Tourists through accommodation businesses and information centres • Sub-catchment planning groups • Game Harvesters • Service Industries (Telstra, Ergon) • Oil & Gas Companies Transport BusinessesAnd within this same information package ask these stakeholders to notify Council of any pest sightings.	MRC	2010-2014	No. of information booklets or posters produced and distributed within each of the community groups identified. 75% of landholders have the ability to identify the priority pests within the Shire (short survey filled out by cropping, industry, sub-catchment, Landcare groups).

Desired Outcome One con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Awareness con't…	con't… To increase community, industry, agribusiness and government awareness of pests and their impacts	Build partnerships with other organizations (including neighbouring Councils, industry and tourist bodies) to source funding and provide signage as required in strategic areas along stock routes and roadways encouraging users to be aware of priority pest plants, how they are spread and the impacts they can have on the local community.	MRC (LLO)	2010	No. of locations identified and no. of pest awareness signs erected. No. of tourists (20%), and service industries (80%) aware of priority pests within the Shire – (short survey and evaluation process developed to determine this).
		Participate in regional pest management meetings	MRC (LLO)	On-going	At least two regional meetings attended per year. Maranoa Regional Council pest management priorities reflected in Regional plans and activities.
		Promote good local pest management activities undertaken by Maranoa Regional Council.	MRC (LLO)	On-going	No. of articles published in local and regional newspapers.
		Build partnerships with local landcare and tourist organizations to organise pest plant and animal awareness raising activities at local events (for example, local shows, field days, Agforce / grower meetings and popular tourist sites).	MRC (LLO)	On-going	No. of events at which pest plant and animal resource material is displayed.

Desired Outcome One Con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Education and Training	To enhance local government officer's knowledge of pest impacts and their capacity and skills in pest management.	Maranoa Regional Council's LLO's and where needed Supervisors and Information Technological Officers attend: • Nationally accredited competency-based training in weed and vertebrate pest management. • Workplace health and safety training • Accredited vehicle wash down training • Queensland Department of Health approved training in the use of sodium fluoroacetate (1080) • Agsafe training courses such as 'Principles of pest management' and 'Chemical handling, storage, and transport' • Compliance training • GPS and MapInfo training • General Computer training • Relevant pest management conferences and workshops	MRC (LLO)	On-going	No. of courses and conferences attended. Number of current pest management competency standards held by the LLO.
Availability of Information	To make readily available to all stakeholders data on the distribution, abundance and current management status of pests.	On the Maranoa Regional Council web site provide: • the Maranoa Regional Council Pest Management Plan • links to DEEDI web site (includes current state wide knowledge of the distribution of pests)	MRC (LLO)	2010	Maranoa Regional Council Pest Management Plan and links to DEEDI website able to be accessed on the Maranoa Regional Council web site.
		Digitally record and continually update all known locations of priority pests identified in this Plan within the Shire using Map info and periodically provide this information to BSQ. Link the Maranoa Regional Council website to the BSQ website, pest information and maps.	MRC (LLO) & IT	On-going	BSQ maps showing the distribution of pests that include update data from the Maranoa Regional Council.

Desired Outcome Two:

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

State Principles:

- Commitment
- Consultation and Partnership

Success Criteria:

- Number of stakeholders working in partnership on long-term pest management.
- Extent to which stakeholders comply with and enforce the *Act*.

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Long term commitment	Establish long term commitment with stakeholders in pest plant and animal management.	Establish partnerships with key stakeholders to undertake strategic actions identified within this Plan.	MRC (LLO)	2010	No. of partnerships established.
		Maintain a working group of key stakeholders to review Maranoa Regional Council's Pest Management Plan.	MRC (LLO)	On-going	Working group established and meets once per year.
		Continue co-ordinated pest management programs across Local Government boundaries to reduce and or eliminate identified species where possible	All LG's QPWS DEEDI	On-going	No. of co-ordinated pest management programs undertaken per annum
		Continue to support the Queensland Parks & Wildlife Service in coordinated control of pest animals and or plants within national parks and state forests located in this region.	MRC (LLO)	On-going	A-line coordinated pest animal/plant mitigation programs for state and privately owned land to ensure infestation can not move across the landscape.
Compliance and Enforcement	Enforce compliance with relevant Acts dealing with the management of pest plants and animals.	Maintain a register of notices issued to land managers and other enforcement activities.	MRC (LLO)	On-going	No. of compliance notices issued. Percentage of compliance with first and second notices issued.

Desired Outcome Three:

Reliable information is available as a basis for decision-making

State Principles:

- Improvement

Success Criteria:

- The extent to which data is collected and used in pest management.
- The level of stakeholder understanding of pest biology, ecology and impacts (including the costs of action and non-action)
- The extent to which the community attitudes to pest management are understood.

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Data collection and assessment	To collect, use, and make available to all stakeholders data relevant to weed and pest animal management.	Map high priority pest plants and animals and contribute this information to the BSQ Pestinfo data base.	MRC (LLO) & IT	On-going	Amount of information from Maranoa Regional Council included on PestInfo
		Develop and use monitoring guidelines and field evaluation record sheets. Continually monitor and evaluate the effectiveness of control activities (eg. result of spraying "x" priority pest plant).	BSQ MRC (LLO)	2010 On-going	Percentage of pest control activities for which monitoring and evaluation data is recorded.
Pest biology and pest impacts	To further the understanding of the biology, ecology and impacts of pest animals and plants.	Consider pest behaviour (biology and ecology), pest impacts (economic, social, and environmental), and pest control costs in the local declaration and prioritization of pest species		On-going	Percentage of priority pests determined with reference to available information on behavior, impacts, and control costs
		Support, and/or in partnership with, neighbouring Shires, regional groups and state government develop projects to determine the ecology (where required) and local and regional impact of high priority pest animals and plants.		2010	No. of projects developed, implemented and their outcomes.
Community attitudes	To further the understanding of community attitudes to weed and pest animal management	Where possible, support regional organizations and state government departments to gather information on community awareness and attitudes about pest animals and plants.	MRC (LLO)	On-going	No. of requests made by regional organizations and state departments to Council and no. of requests fulfilled.

2.4 Desired Outcome Four:

Strategic directions are established, maintained and owned by all stakeholders

State Principles:

- Planning
- Integration

Success Criteria:

- The number of pest management plans at different levels incorporated into the planning framework
- The degree of coordination in implementing, evaluating and reviewing pest management plans
- The proportion of pest management actions that are adequately resourced
- The extent to which pest management actions are integrated with planning at different levels

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Planning	To create a planning framework for pest plant and animal management	Ensure that the Maranoa Regional Council Pest Management Plan is consistent with regional and state pest strategies and plans	PWG?	On-going	No inconsistencies between plans
Strategy management and coordination	To implement, evaluate, and review integrated weed and pest animal strategies	Review the annual action plan three months before the end of each financial year	PWG?	Yearly	Percentage of annual action programs given timely review
		Complete each new Maranoa Regional Council Pest Management Plan three months before the expiry of its predecessor	PWG?	Every 4 years	Completion of new Pest Management Plan prior to expiry of predecessor
		Implement actions of priority pest plant and animal actions identified within the Maranoa Regional Council Pest Management Plan.	MRC (LLO), BSQ & IT	On-going	Percentage of actions implemented.
		Participate in the development of regional pest plant and animal management plans, workshops and actions, as appropriate and where funding / resources permits (ie. for across shire or similar issues).	MRC (LLO)	On-going	No. of pest management activities being addressed regionally by local governments. No. of regional activities Maranoa Regional Council is involved in.

Desired Outcome Four con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Resources	To efficiently and adequately resource weed and pest animal management	Commit to adequately resourcing the Maranoa Regional Council Pest Management Strategy focusing on high priority pests.	MRC (LLO)	On-going	Percentage of this Plan adequately resourced and implemented. Percentage of resources allocated according to pest priorities.
		In partnership with other local governments within the region initiate a review of local government precepts payable for the Barrier Fence. Continue to submit the local government precept to the Minister of Natural Resources for the Barrier Fence. Continue to submit the precept fees for research purpose.	MRC (LLO)	2010	Precepts reviewed. Precepts paid.
		Seek funding and other resources wherever possible to implement actions within the Maranoa Regional Council Pest Management Plan.	MRC (LLO)	On-going	Resources (actual dollars and in-kind) obtained from non-local government sources.
		Establish fair and equitable rates and charge fees to private landowners for pest management services undertaken by Maranoa Regional Council.	MRC (LLO)	2010 reviewed annually	Value of income derived from service provision versus expenses of work undertaken.
		Determine fees for undertaking pest control actions on private property by delegated officers of Council	MRC (LLO)	2010	Cost recovery.

Desired Outcome Four con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Holistic Management	To integrate pest management planning with other government, property, community and industry planning	Include pest management actions in other Maranoa Regional Council planning documents and new development applications (including preventing weed, seed spread, eradicating high priority weeds on new development sites, planting non-invasive species).	MRC (LLO)	On-going	No. of pest management actions included in other Maranoa Regional Council planning documents and new development applications.
		Encourage regional natural resource management groups to incorporate pest management as an integral component of all property land management-planning processes (eg. sub-catchment planning, property planning, environmental management systems etc).	MRC (LLO) QMDC	On-going	Record of support provided by Maranoa Regional Council.
		Have all Mining, Service and other relevant companies and their contractors adopt the shire's weed management plans as part of current recommended practices.	MRC (LLO)	On-going	Record of support provided by Maranoa Regional Council.
		Ask Mining and Service companies to submit their environmental management plans to Council for review, compliance and comment.	MRC	Annual	No. of plans supplied to Council that meet the requirements of this regions plan

2.5 Desired Outcome Five:

Introduction, spread and establishment of weeds and pest animals is prevented

State Principles:

- Prevention

Success Criteria:

- The extent to which the introduction of new pests is prevented
- The extent to which the local establishment of new pests is prevented
- The extent to which pests are prevented from spreading

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Prevention	Prevent the introduction of new pest plants and animals	Adopt weed prevention protocols and promote the use of these protocols to other stakeholders.	MRC (LLO)	2010	Percentage of key stakeholders using weed prevention protocols
		In consultation with neighbouring local governments, weed management groups, BSQ and industry, review existing weed hygiene declarations as appropriate and include these declarations as a requirement of the permit application for travelling and agistment stock.	MRC (LLO)	2010	A weed hygiene declaration is obtained for all stock agisted or travelling the stock route. No. of forms provided to Council
		Promote weed hygiene declarations for movement of harvesting, construction, and other industry related equipment, as well as, the movement of fodder, soil and turf.	MRC (LLO)	On-going	Industry identified as high percentage of key stakeholders - using weed hygiene declarations.

		Develop a standard code of practice to minimise weed seed spread associated with any civil construction work undertaken by Maranoa Regional Council and outside contractors to Maranoa Regional Council (including on existing and new developments).	MRC (LLO) Civil Services	2010	Code of practice produced and adhered to. No. of infrastructure development contracts that include weed prevention codes.

Desired Outcome Five Con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Prevention con't…	Prevent the introduction of new pest plants and animals con't…				
Early detection and eradication		Target pests identified for "early detection and eradication" in Section 3.0 of this Plan.	MRC (LLO)	On-going	Change in distribution of pests identified for "early detection and eradication" within the Maranoa Regional Council
		Conduct seasonal surveys of road sides and other critical areas within Maranoa Regional Council for pest plants and animals	MRC (LLO)	On-going	
		Encourage landholders to provide Council with mapping details of high priority pests through industry, sub-catchment and producer groups.	MRC (LLO)	On-going	No. of pest sites identified by landholders and sent to Council
		Develop a weed seed spread code of conduct for travelling stock, giving consideration to a "go slow zone" to limit the spread of weed seed as required.	MRC (LLO)	2010	New weed seeds along the stock route restricted to "go slow zone"

Desired Outcome Five con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Containment	Contain and reduce priority pest infestations within the Maranoa Regional Council	Target pests identified for "containment" in Section 3.0 of this Plan and development containment strategies/plans for these pests.	MRC (LLO)	On-going	Change in distribution of pests identified for "containment" within Maranoa Regional Council
		Support rapid response agreements signed off by Maranoa regional Council with neighbouring Councils.	MRC (LLO)	On-going	No. of responses associated with the rapid response agreement/s
		Respond to landholder complaints promptly by providing processes that can be implemented to reduce infestation.	MRC (LLO)	On-going	No. of complaints received
		Contain Class 2 pests to core areas.	MRC (LLO)	On-going	Change in distribution of Class 2 pests

2.6 Desired Outcome Six:

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

State Principles:

- Best practice
- Improvement
- Commitment

Success Criteria:

- The extent to which best practice is adopted
- The extent to which the populations and impacts of established pests are reduced
- The degree of protection afforded to environmentally significant areas by weed management programs
- The extent to which local pest management practices are developed and improved
- The extent to which incentives enhance pest management

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Adoption of management techniques	Adopt and promote best practice in weed and pest animal management	Encourage industry, government and community groups to support the implementation of the Maranoa Regional Council Pest Management Plan within their own programs.	MRC (LLO)	On-going	No. of programs that refer to or incorporate actions from this Plan
		Support BSQ to distribute best practice publications to relevant stakeholders.	MRC (LLO)	On-going	No. of requests from QDEEDI and no. implemented
		Consider timing, integrated techniques, non-target damage, cost, prevention, animal welfare, workplace health and safety, monitoring, research, operational procedures and chemical registration requirements in planning.	PWG?	On-going	No. of complaints
		Develop a working group with none traditional grazing/farming landowners (eg Mining Companies) to implement best practice pest management control actions	BSO MRC Mining Co	Ongoing	No. of improved pest management practices

Desired Outcome Six con't…

Issue	Strategic Objective	Strategic Actions	Who	When	Success Indicators
Population and impact management	Reduce pest populations and impacts	Participate in the coordination of plague pest animal management with all stakeholders and support the lead agency, as appropriate.	MRC (LLO)	On-going	Amount and type of support provided No. of complaints
		Conduct coordinated baiting campaigns for wild dogs.	MRC (LLO)	Twice a year	No. of landholders participating and area land and location covered
Environmentally significant areas	Protect environmentally significant areas from weeds	Regularly monitor environmental significant areas for pests identified within *Maranoa Regional Council's Stock Route Management Plan* and develop appropriate management plans as required (giving consideration to developing partnership agreements with other key stakeholders and accessing non local government resource support)	MRC (LLO)	On-going	No. of significant areas targeted for pest management No. of pest management plans for significant areas implemented
Development of management practices	Develop new, and improve existing, pest plant and animal management practices	Advise regional pest / natural resource management groups of areas in which future research is required to help manage pest plants and animals within the Maranoa regional Council.	MRC (LLO)	On-going	No. of regional pest / natural resource management groups attended
Incentives	To offer incentives to stakeholders for practising pest management	Monitor effectiveness of wild dog bonus payments made to person/s. Provision of some meat to landholders for baiting programs Council encourage and work cooperatively with landholders to implement best practice and carry out actions to eradicate or reduce pests within the Shire.	MRC (LLO) MRCW DAG member	2010	Number of complaints and sightings advised to Council/Wild dog advisory group. Number of landholders ordering meat for baiting programs

		Hire of MRC spray equipment to landholders in the control of weeds Investigate other incentive options?		Ongoing	Number of landholders using hire equipment No. of reports presented to Council

3.0 PRIORITY PEST SPECIES

This Section begins by listing all pests identified as impacting or having the potential to impact upon industry within the Maranoa Regional Council areas, associated community and environmental systems.

The "local distribution" information provided in Section 3.2 and 3.3 only relates to land within the Shire managed by Council and does not include freehold or leasehold land, national parks, state forests and other land managed by the state.

For each pest their declaration status, current level of impact, control information, distribution and density was identified and considered to determine an appropriate achievable management objective. The management objectives were denoted as follows:

A. Prevention of introduction (exclusion from entering the Shire)
B. Early detection and eradication – eradication of isolated, strategic infestations/populations
C. Containment – within specific areas
D. Broad scale management with biological control or fire/protection of strategic areas
E. Technical Advices/Promote Awareness

Using a matrix methodology each pest was then given a very high, high, medium or low priority rating based on the potential detrimental impact to the region if nothing was done to control the pest and the likely impact gained by doing something or spending money now.

		Likely impact gained by doing something/spending money now			
Potential detrimental impact to the Shire of not doing anything to control the pest		**Low**	**Moderate**	**High**	**Very High**
	Low	Very Low	Low	Low	Low
	Moderate	Low	Low	Moderate	High
	High	Low	Moderate	High	Very High
	Very High	Low	High	Very High	Extreme

The known distribution of the individual species was described and recorded with the following table. It was also agreed weed maps produced by DEEDI should be included in the document along with the Priority Weed Threat Map produced by the Queensland Murray-Darling Committee.

3.1 CLASSIFICATION

A number of pest plants and animals are declared under *the Land Protection (Pest and Stock Route Management) Act 2002*. These plants are listed (Schedule 2 of the *Land Protection (Pest and Stock Route Management) Regulation 2003)* and categoriised into three separate classes as outlined in Section 3.1.1 below.

In addition to this classification Maranoa Regional Council gives an additional priority rating of “high”, “medium” or “low” to each pest animal and plant based on the current and potential impact of the pest within the Shire, where greater resources and attention is given to higher priority pests.

3.1.1 State

A Class 1 pest is one not commonly present in Queensland that is, 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.

Class 2 pests are established in Queensland and have, or could have, an adverse economic, environmental or social impact. Their management and control 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.

The declaration of Class 3 pests took effect on 1 November 2003. These plant species are established in Queensland and 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.

3.2 PEST PLANTS

Within the following tables the local distribution only relates to land within the Shire managed by Council and does not include freehold or leasehold land, national parks, state forests and other land managed by the state.

Pest – Common and Scientific Names	Declaration Status (e.g. Class 1,2,3)	Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)	Distribution and Density	Achievability or Mangement Objectives	Priority
African Boxthorn Lycium ferocissimum	Class 2	Invades pastures and provides harbourage for pest animals	Isolated – water course & adjacent areas	**C**-Containment	High
African Love Grass *Eragrostis curvula*	Not Declared	Produces vast quantities of seeds which quickly develop into large viable seed bank, making the plant difficult to eradicate. It is extremely competitive with other pasture species and is an aggressive invader, overtaking sparse, overgrazed or poor quality pastures, particularly in sandy soils.	Infestation increasing – light sandy soils, main roads, Yuleba Forestry camp, railway line, Condamine/Carnarvon Highway cross roads, Eastern end of Condamine Highway	**E.** Promote awareness	Moderate
Bathurst Burr *Zanthium spinosum*	Not Declared	Contaminates wool and competes with summer crops.	Scattered throughout	**E.** Promote awareness	Low
Cats Claw Vine *Macfadyena unguis-cati*	Class 3	Invades waterways and choke out native vegetation	Bungil Creek, Yalebone Creek and urban gardens	**B.** Early detection & eradication	High to Very High
Cotton Tail *Froelichia floridana*	Not Declared	Competes with pasture.	Lighter soils throughout the Shire	Provide technical advice when required Eradicate small new infestations	Low
Cumbungi *Typha spp.*	Not Declared	Invasive	Water storage areas	**E.** Technical advise	Low
Fire Weed *Senecio madagascariensis*	Class 2	Competes with pasture and is toxic to stock	No known population of this introduced species	**A.** Prevention of introduction	Very High
Giant Rat's Tail Grass *Sporobolus pyramidalis and S. natalensis*	Class 2	Aggressive plant reduces pasture productivity and quickly out competes desirable pasture species.	Isolated patch – Pony Hills State Forest, Yellowbank Gas camp	**B.** Eradicate	High

Pest – Common and Scientific Names	Declaration Status (e.g. Class 1,2,3 local law)	Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)	Distribution and Density	Achievability or Mangement Objectives	Priority
Green Cestrum *Cestrum parqui*	Not Declared	Competes for pasture and toxic to stock	Bungil Creek – 10km radius Roma Town	**C.** Containment	High
Harrisia Cactus *Eriocereus spp*	Class 2	Strongly competes with pasture and toxic to stock	West Mitchell on Warrego Highway & adjacent paddocks Jackson 3km radius, Yuleba North Road (14km), St.George Middle Road, 30km south of Surat off the Carnarvon Highway	**C.** Containment	Very High
Honey Locust *Gleditsia triacanthos*	Class 1	Invasive tree that smothers pasture and native vegetation, inflicts painful injuries with long spines. Can rapidly form dense thickets restricting stock, vehicle and human movement.	Very isolated plants	**B.** Eradication	Very High
Lantana *Lantana camara*	Class 3	Fast growing shrub resulting in severe impacts to native species.	Balonne River, Nth Wallumbilla, Pine Hills Road, Isolated patches, Bungewogari Lane, urban gardens	**B.** Early detection and eradication	Very High
Lippia *Phyla canescens*	Not Declared	Strong competitor with pasture, especially in Riparian areas. Located in urban gardens	Through out Shire	**E.** Technical advise	Low
Mesquite *Prosopis glandulosa, P. pallid and P. velutina*	Class 2	Sharp thorns can injure animals and puncture vehicle tyres. Seeds can lay dormant for years and seedlings can reappear in areas that have previously been cleared.	Yuleba Forestry and may be identified along artillery roads and highways	**B.** Early detection and eradication	Very High
Mimosa *Acacia farnesiana*	Not Declared	Competes with pasture.	Throughout	**E.** Technical advise	Low
Mother of Millions *Bryophyllum spp*	Class 2	Poisonous to stock	Throughout	**C.**Containment **D.** Broad scale management with biological control fire/protection of	High

				strategic areas	
Noogoora Burr *Xanthium occidentale*	Not Declared	Competes with pasture especially in riparian zones. Toxic to stock	Throughout	**D. B**iological control	Low
Pest – Common and Scientific Names	**Declaration Status (e.g. Class 1,2,3 local law)**	**Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)**	**Distribution and Density**	**Achievability or Mangement Objectives**	**Priority**
Parkinsonia *Parkinsonia aculeate*		Forms dense, often impenetrable, thorny thickets along water courses and bore drains, restricts stock access to drinking water and makes mustering virtually impossible Provides a harbour for feral pigs, which predate on livestock, damage crops, and seriously degrade the environment, flooded country is particularly susceptible to invasion from floating seeds	Isolated – Dargal Road 5km from Roma, Roma Saleyards, 5km West Roma, Yalebone Creek junction of Dunkeld Road	**B.** Early detection and Eradication	High
Parthenium *Parthenium hysterphorus*	Class 2	Vigorous species that colonies pasture's and reduces pasture potential, can cause health problems due to allergic properties, toxic to stock.	Scattered throughout – heavy infestation to north and medium to west and south west	**B.** Early detection and eradication of new outbreaks. **C.** Containment for the rest of the Shire	Very High new outbreaks High
Pimelea *Pimelea elongate*	Not Declared	Poisonous to stock, native plant numerous species	Throughout	**E.** Technical advise	Low
Prickly Acacia *Acacia nilotica*	Class 2	Affects accessibility to land, depletes pasture when canopy is formed	Scattered along main artillary roads 60 Km south Roma off Bullagai Road	**B.** Early detection and eradicate	High
Prickly Pear *Opuntia spp*	Class 2	Completes strongly with pasture	Scattered throughout	**D.** Biological control	Low
Rubber Vine *Cryptostegia grandifilora*	Class 1	Invades waterways and smothers riparian vegetation. Poisonous to stock and harbourage for declared animals	Isolated urban plants	**B.** Early detection and eradication	High
Saffron Thistle *Carthamus lanatus*	Not Declared	Competes with pasture, common in cultivated land.	Scattered throughout	**E.** Technical advise	Low
Salvinia *Salvinia molesta*	Class 1	Invades and chokes waterways displacing native species	not detected within the Region	**A.** Prevention of introduction	High
Thornapples *Datura spp.*	Not Declared	Competes with pasture and poisonous to stock	Scattered throughout – waterways and cultivation	**E.** Technical advise	Low

Tiger Pear *Opuntia aurantiaca*	Not Declared	Impediment to native species and stock, competes with pasture	Scattered along Ripirian, thick along Dawson River	**E.** Technical advise, **D.** Broadscale management, biological control.	Low
Pest – Common and Scientific Names	**Declaration Status (e.g. Class 1,2,3 local law)**	**Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)**	**Distribution and Density**	**Achievability or Mangement Objectives**	**Priority**
Tree Pear	Not Declared	Impediment to native species and stock, competes with pasture	Scattered throughout	**D.** Broadscale management, biological control.	Low
Devils Rope Pear	Class 2	Impediment to native species animals and humans, competes with pasture, will inundate land	60km east of Surat along the Balonne River and on Yuleba Creek near old School	B. Early detection and eradication	Very High
Water Hyacinth *Eichhornia crassipes*	Class 2	Chokes waterways, destroys native habitat, increases water loss and depletes water of oxygen	Roma - Railway Dam – monitor	**B.** Early detection and eradication	Very High
Water Lettuce *Pistia stratiotes*	Class 2	Forms dense mats on water restricting flow, increase water loss by transpiration and serve as a breeding ground for mosquitoes	Roslyn Drive	**B.** Early detection and eradication	High
Mexican Feather Grass	Class 1	Heavy infestations displace desirable pasture species, decreases pasture productivity, long sharp seeds injure animals downgrading meat, wool and hides (leather), reduces natural biodiversity	Has been eradicate – Surat School and urban land Charles Street Surat	**A.** Prevention of Introduction	High
Chilean Needle Grass	Class 1		Not currently detected in Region	A. Prevention of Introduction	High

3.2.1 **Priority of Pest Plants – Management Objective and Control Method**

The following table provides a summary of all pests identified as **'high'** priority providing management objective and control method. Annual Pest Plans reflect those species identified as 'high' priority due to resource constraints.

For the purpose of the Annual Pest Plan (Section 4.0) those high priority plants and animals with the same management objective have been grouped together. This is because the actions and measures of success will be similar. Within each of these broader management objective groups some specific treatments or actions for individual pests are also identified.

Plant Name	**Management Objective**	**Control Method**
Parthenium	**E**arly detection **C**ontainment	• Pastures to be maintained in good condition – high level of grass crown cover will limit parthenium weed colonisation • Avoid overgrazing of pastures • Fence off infested areas to prevent stock grazing, allow more flexible management such as spelling pasture or herbicide application • Herbicide control – small and or isolated infestations treted immediately, extensive infestations will require herbicide treatment in conjunction with pasture management. Timing of spraying is critical so parthenium weed is removed when plants are small or before seeding has occurred. • Some registered herbicides include: Amicide 625, 2/4-D amine, atrazine, Tordon 75-D, Metsulfuron • Vehicles and implements passing through infested areas should be cleaned to remove all seeds (prevent weed seed spread). The clean down area should be confined to one area for monitoring and eradication of new plants. Obtain weed seed hygiene declaration form • Avoid moving cattle from infested to clean areas during rain events. Cattle should be held in a yard or small paddock until seed has dropped (tails, hide hair etc) before releasing animals to larger grazing area. • When purchasing hay, seed or other fodder material, ensure the product is parthenium weed free.
Harrisia Cactus	**C**ontainment	• Spray plant with registered herbicide – Metsulfuron, DP 600, Access and Tordon DSH • Biological control – stem boring longicorns beetle (*Alcidion cereicola)* and mealy bug *(Hypogeococcus festerianus).* • Dig plants out (including bulb in roots) and burn or bury.
Rope Pear	**C**ontainment	• Spray plant thoroughly to ground level with registered herbicide – Access • Biological control – cochineal insect however these must be protected in winter and during wet weather.

Plant Name	Management Objective	Control Method
African Boxthorn	**C**ontainment	• Cut stump or basal bark – do not treat during dormant winter months • Foliar spray – using Grazon DS • Use Glyphosate on small plants • Roundup – Foliar spray after good soaking rains – plants must be actively growing • Mechanical eradication can be implemented on large stands – blade ploughing and stick raking or removing entire root system and burn plant complete
Green Cestrum	**C**ontainment	• Access – basal bark or cut stump and apply chemical • Glyphosate – apply chemical to cut stump • Tordon 75-D and Amitrole T – foliar spray actively growing plants to eliminate flowers and berries • Seedlings can be suppressed by vigorous competition from other plant pasture species or local native species • Removal of plant and root system can be done, however root system is very complex – need to remove all yellow roots – burning of roots is advisable. ***Please note that dried plant matter is toxic to stock***.
Cats Claw Vine	**B.** Early detection and eradication	• Glyphosate – cut stump just above ground level and apply chemical on cut stump. Foliar spray when plant is actively growing – need to retreat as necessary
Mesquite	**B.** Early detection and eradication	• Access and Garlon 600 – basal bark or cut stump and treat with chemical • Grazon DS – foliar spray for seedlings or regrowth
Lantana	**B.** Early detection and eradication	Mechanical, Biological and chemical control methods can be implemented. • Large infestations – fire, dozing-stickraking and cutting stump apply chemical (Access) • Lantana DP600, Glyphosate, Grazon DS, Metsulfuron, Starane 200, Tordon 75-D – foliar spray ensure plants are wet thoroughly – plants should be actively growing or not under stress when applying such chemicals. Large bush may need re-treatment • Amicide 625 – use a coarse spray with sufficient pressure to penetrate canopy and wet stems as well as foliage
Salvinia	**A.** Prevention of introduction	Can be sprayed with herbicide, results can be variable as upper leaf surfaces are largely non-wettable making absorption of herbicide difficult. Large infestations may be gathered with mechanical harvesters and scoops although effectiveness of this method is liminted as the plant breaks easily into fragments. • AF100 – lightly spray free floating plants and adjacent water surface • Reglone – thoroughly saturate plants

Plant Name	Management Objective	Control Method
Parkinsonia	**B.** Early detection and eradication	• Mechanical control – blade ploughing • Chemical control – basal bark or cut stump technique, foliar spraying • Fire kills seedlings and seeds and is an excellent form of follow up control
Prickly Acacia	**B.** Early detection and eradication	Control of prickly acacia can be achieved with an integrated approach using mechanical, chemical and biological methods. Fire and pasture management can complement these treatments – variables to be considered when determining control methods – location, size and density of infestation, landform, timing of control, available resources. Mechanical control – to be conducted before the seed pods are dropped – permits may be required if native plants are affected. Plants with truck diameter less than 150mm can be grubbed, cutting the root to at least 300 mm below the soil surface to prevent regeneration – tractor fitted with a scoop or grubbing attachment is useful for this purpose. Basal bark spray method is suitable for stems up to 100mm in diameter. Stem should be sprayed completely around the base up to a height of 300mm above ground, wetting the bark to the point of run-off. Most effective between April and August. Cut stump and apply chemical technique may be used at any time of the year. Foliar or overall spraying is effective on seedlings and young plants up to 2m in height.
Giants Rat's Tail Grass	**B.** Early detection and eradication	**ALERT** – Early identification is essential – contact DEEDI or your LG if you suspect a plant within this Shire. Glyphosate – spot spray
Water Lettuce	**B.** Early detection and eradication	Weedmaster Duo – helicopter application Affray 300 – (Boom spray) sprinkle onto free-floating plants and adjacent water surface AF 100 – spot spray. Don not spray dense solid mats with no visible water surface
Rubber Vine	**B.** Early detection and eradication	Grazon DS – foliar spray 2,4-D Ester – foliar spray and basal bark, cut stump Brush-off/Brushkiller™600 and wetting agent – complete coverage is essential 2,4-D Amine – cut stump – repeat applications maybe required
Water Hyacinth	**B.** Early detection and eradication	Weedmaster Duo – foliar spray do not treat in winter 2,4-D Amine – foliar spray do not treat in winter AF300/Afray300 – foliar spray
Honey Locust	**B.** Early detection and eradication	Access – Basal bark or cut stump Starane 200 – basal bark - read chemical label for different tree trunk size and alternate application method

Plant Name	**Management Objective**	**Control Method**
Chilean Needle Grass	**A.** Prevention of introduction	Manual removal most effective – remove any basal or stem seeds and incinerated prior to plants dry out. Mowing or slashing – narrow window of opportunity to implement this process, no mowing of plant after flowering Fire can be used when plant in full seed. Will reduce new seedling growth, however will promote seed located in soil. Chemicals Flupropanate – ground and aerial application and spot spraying Glyphosate – boom or spot spraying
Fire Weed	**A.** Prevention of introduction	2,4-D (625g/L) – spot spraying only Aminopyralid (10g/L) + fluroxpyr (333g/L) Apply as a high volume or spot spray to flowering plants up to 30cm tall Triclopyr (300g/L)+ picloram (100g/L) + aminopyralid (10g/L) Apply as a high volume or spot spray when the plant is actively flowering Bromoxynil (200g/L) Apply during the autumn/sinter period when plants are young and actively growing. Not effective on mature plants
Mother of Millions	**C**ontainment	2,4-D acid (AF300) Overall spray handgun/knapsack Picloram + triclopyr – Overall spray knapsack – apply at flowering

3.3 PEST ANIMALS

Pest – Common and Scientific Names	Declaration Status (e.g. Class 1,2,3 Local Law)	Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)	Distribution and Density	Achievability or Mangement Objectives	Priority
Carp *Cyprinus carpio*	Class 2 Noxious species	Competes with native species	Throughout waterways	**E.** Promote Awareness, Technical advise	Low
Dingo / Wild Dog *Canis familiaris dingo / Canis familiaris*	Class 2	Kill, harass and maim stock. Carrier of disease	Throughout the region	**D.** Broadscale Management of strategic areas	High
Feral Cat *Felis silvestvis; Felis catus*	Class 2	Impact on native species	Throughout the region	**D.** Broadscale Management	Low
Feral Goat *Capra hircus*	Class 2	Damage to pasture, crops and infrastructure . Carrier of disease	Throughout – southwest of Shire	**D.** Broadscale Management	Low
Feral Pig *Sus scrofa*	Class 2	Damage to pasture, crops and infrastructure. Carrier of disease	Throughout the region	**D.** Broadscale Management	Moderate
Fox *Vulpes vulpes*	Class 2	Kill stock, small mammals, frogs, fish and native ground-dwelling animals	Throughout the Region	**D.** Broadscale Management	Moderate
Locusts *Chortoicetus terminifera, Locusta migratoria, Austracris guttulosa*	Class 2	Can significantly reduce the quantity of pasture and crops	Seasonal – throughout the region	**B.** Early detection and eradication	High
Mice *Mus domesticus*	Not Declared	Damage to crops and property	Seasonal – throughout the Region	**E.** Technical Advise Promote awareness **D.** Broadscale Management for crop areas	Low

Pest – Common and Scientific Names	Declaration Status (e.g. Class 1,2,3 Local Law)	Level of Impacts/Threats (potential and actual) (e.g. Environment, Primary Industry, Social, Amenity etc)	Distribution and Density	Achievability or Mangement Objectives	Priority
Rabbit *Oryctolagus cuniculus*	Class 2	Causes soil erosion and competes with native species	Throughout the Region	**D.** Broadscale Management	High
Hare			Throughout the Region	**D.** Broadscale Managment	Low
Wild Horse	Not Declared	Damage to native grasses and biodiversity, soil erosion and land degradation from over grazing	North west of Shire – State Land	**C.** Containment	High
Deer (Hog and Rusa)	Not declared	Damage to native grasses and biodiversity, soil erosion and land degradation from over grazing	Isolated pockets – north Roma, west Mitchell	**B.** Early detection and eradication	Moderate

3.3.1 High Priority Pest Animals –Control Methods and Management Objectives

Animal Name	Management Objective	Control Method
Locust	**E.** Technical Advise Promote awareness **D.** Broadscale Management for crop areas	The ability of locusts to invade previously uninfested areas and lay eggs within days, combined with the mobility of flying swarms, makes swarm control particularly difficult for individual landholders. Locust control is usually best carried out at the hopper stage. Currently, the most cost-effective way to achieve control is by spraying the densest concentrations of locusts, either as bands or swarms. The Australian Plague Locust Commission is researching control techniques to reduce non-target impacts of chemical control.
Mice	**D.** Broadscale Management	Landholders must work collaboratively to eradicate this pest animal in grain growing areas. Use of manufactured baits is essential to protect grain.
Rabbit	**D.** Broadscale Management	An integrated control approach should be adopted. It is important landholders understand that biological control agents are not the sole answer to the rabbit problem. It is essential they are incorporated into a management strategy with other control techniques. Destroying a rabbit's home (eg. fumigating and ripping warrens) is the most effective method for long-term control. Other control methods include Myxomatosis, baiting with 1080 or pindone, rabbit proof fencing, clearing surface cover, fumigating warrens, shooting and trapping.
Wild Dog	**D.** Broadscale Management – aim is to contain and or reduce wild dog numbers	• 1080 baits are the most economic, efficient, humane and effective method of controlling wild dogs, especially in inaccessible or extensive areas. Baits can be laid in large numbers by hand, from vehicles and or from aircraft. 1080 can only be obtained through licensed NRM&W and Local Government operators. To increase baiting effectiveness and maintain low wild dog numbers, it is **essential** that baiting programs be coordinated among adjoining properties disregarding local government boundaries and landholders work together to achieve this goal. • Integrated (with baiting) wild dog control: ○ Shot - which is opportunistic and mostly used for the control of small populations. ○ Trapped – which can be time-consuming, labour-intensive and depends on the skill of the trap operator. ○ Fenced out – this can be an expensive process and requires continual maintenance to repair damage caused by fallen timber, floods and animals. For fencing to be successful, it must be possible to eliminate wild dogs from within the fence. ○ Livestock guardian dogs – less successful on larger holdings where stock are more widely scattered and has the potential to restrict the use of traps and baits.
Wild Horse	**C**ontainment	Council to work with DERM to control wild horses on public land – Carnarvon National Park

4.0 HIGH PRIORITY PESTS - ANNUAL WORK PLAN

Resources to manage pests are limited. Consequently actions associated with high priority pests will be implemented first. Other actions will be implemented as resources become available.

Prevention is generally recognised as a more cost effective method than containment or eradication. Consequently Maranoa Regional Council also places high priority on actions associated with hygiene management and awareness.

The following "general" actions relate to all high priority plant pests outlined in Sections 4.1 to 4.20.

Operational Action	Who	When	Success Indicator
Conduct regular general inspections and control on roadsides and reserves	MRC (LLO)	On-going	No. of inspections /year
Continue to monitor areas potentially at risk of new infestations and treat any new infestations found. Work with DEEDI officers to ensure pests mapping is current	MRC (LLO)	On-going	No. of new infestations found and treated Update mapping annually
Hygiene Management: • Implement day-to-day hygiene management • Identify potential pest plant entry points on land managed by Maranoa Regional Council. • Establish property / site hygiene plans, as required. • Require a written weed hygiene declaration for any material, stock and vehicles (eg. seed, hay or other stock feed) bought / used within lands managed by Maranoa Regional Council. • Regularly inspect and wash down vehicles and equipment used or contracted by Maranoa Regional Council, as required. • Monitor high traffic roadways and tracks • Monitor washdown facility sites to identify if, (i) upgrades needed for existing facilities and (ii) the requirements for new facilities. Should facilities be recommended for Maranoa Regional Council investigate funding opportunities and partnerships to build them.	MRC (LLO) MRC (LLO)	On-going On-going	Hygiene code produced Entry points included in code Critical areas identified in code Regular vehicle inspections for weed seed spread undertaken Location or spread of pests Maintain current washdown facilities to user friendly efficient standard, work in collaboration with DEEDI to develop any new strategic sites – Roma Saleyard Site.
Awareness • Raise community awareness of pest plants by way of brochures, displays and other means. • In conjunction with DEEDI collate and distribute best practice information to landowners / managers, including maintaining good pasture competition by implementing sound land use management practices.	BSQ MRC (LLO) MRC Working Group	Yearly Yearly	No. of regional pest plant booklets distributed. No. of 'pest fact sheets' distributed

Operational Action	Who	When	Success Indicator
Mapping: • Map current major infestations sites of high /medium and Class 1 and Class 2 priority pests. • Encourage landholders to report and provide maps of the locations of priority pest plants on land they manage • Update maps of known infestations.	MRC BSQ Landcare SW	On-going	Map all sites of pest plants within Region and download onto MapInfo Map produced and Updated annually Provide information to DEEDI
Funding: • Investigate and source additional funding and resources to help manage pests.	MRC/ Landholders Land Catchment Management Groups (QMDC/SWNRM)	On-going	Amount of additional funding sourced
Private Property: • Provide advice to landowners regarding the control of infestation areas on private areas, as required. • Work cooperatively and encourage landholders to be committed to eradication of pest infestations. • Conduct regular follow-up inspections of known infestation areas on private property of high priority pests.	MRC (LLO)	On-going	No. of complaints No. of property inspections undertaken

4.1 Very High Priority Plants

A	Prevention of introduction			
Plant Name	Fire Weed Chilean Needle Grass Salvinia			
Priority in Adjacent Local Areas	Fireweed has a high priority level as it has not been detected in this Region, neighbouring Local Government areas do not have any infestations. Very invasive plant and maybe toxic to animals			
Operational Objective	No plants within the Shire.			
Success Indicator	Not identified within the Shire			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Encourage landholders to remain vigilant and identify weeds so as control measures can be implemented quickly Through inclusion of colour pest fact information of Fire Weed, Chilean Needle Grass and Salvinia in 'Bottle Tree Bulletin' once per annum for identification purposes	MRC (LLO) LH	On-going	
	Availability of Information – information located on Council website and link to DEEDI website	MRC (LLO) LH Bio-Security Qld	On-going	
	Work collaboratively with natural resource bodies to ensure local landcare group members can identify plants and know the process of advising DEEDI and Council	MRC (LLO) MBCMC SWNRM DEEDI		
	Implement a rapid response program to eradicate a plant identified within this Shire.			
		LH MRC (LLO)	On-going	
Measures of Success:	No plants within the Shire	S**uccess Indicators:** **No plants within the Shire**		

4.1 High Priority Plants cont.

B	Eradication			
Plant Name	Cats Claw Vine, New outbreak of Parthenium Mesquite, Lantana, Parkinsonia, Prickly Acacia, Giant Rat's Tail Grass, Water Lettuce, Rubber Vine, Water Hyacinth, Honey Locust,			
Priority in Adjacent Local Areas	Neighbouring Local Governments have placed high priority to eliminate any infestations of the above plants.			
Operational Objective	Eradicate cats claw vine within the Bungil Creek area. Seek assistance from all urban residents to eliminate the plant from their garden. Eradicate all other high priority plant through control mechanisms			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Monitor and map current identified sites to ensure eradication of plants.	MRC (LLO) LH Sub catchment groups DERM - Forestry and National Parks	On-going	
	Eradicate, all high priority plants by implementing best practice control methods.	MRC (LLO) LH	On-going	
	Identify and contact urban land holders and gardeners to eliminate rubber vine, honey locusts to prevent spread of plant within the region	DEEDI MRC (LLO)	December 2012	
	Provide information in 'Bottle Tree Bulletin' that outlines land owner obligations and how to identify and eradicate these plants	LH MRC (LLO)	On-going	
	Identify and contact land holders along Bungil and Yalebone Creeks to eradicate cats claw vine in water courses. Identify and contact urban gardeners to eliminate cats claw vine in urban gardens.	DEEDI MRC (LLO)	On-going	
	Integrate actions within sub-catchment and catchment plans through awareness, field days/agricultural shows providing information to identify plants and the impact should no control actions occur	SWNRM, QMDC, Landcare, Sub-catchment groups	On-going	
Measures of Success:	Elimination of pest plants within the Shire Eradicate new infestations Number of community responses from articles placed in Bottle Tree Bulletin. Number of land holders along Bungil and Yalebone Creeks that have implemented action to eradicate plants in the water course. Number of urban residents that have eliminated cats claw vine	**Success Indicators:** Elimination and no new infestations of plants within the Shire		

C	Containment			
Plant Name	Parthenium – heavy infestation northern section of Shire (Mitchell and Roma) – medium to west, south and south west, no plants identified in the eastern section of the Shire Harrisia Cactus Rope Pear African Boxthorn Green Cestrum Mother of Millions			
Priority in Adjacent Local Areas	Neighbouring Local Government areas have 'high priority' to ensure no major infestations			
Operational Objective	Contain to current areas. Maintain mapping of all species so as annual comparison can be made.			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Continue to map all pest plant sites	MRC (LLO) LH	On-going	
	Control roadside parthenium growth (North of Mitchell and Roma) to eliminate further spreading of plant by vehicular traffic.	MRC (LLO) LH Community	On-going	
	Spray all other plants at least twice per annum or as season dictates	MRC (LLO)	On-going	
	Continue to promote bi-control methods for Parthenium, Mother of Millions and Harrisia Cactus	DEEDI MRC (LLO) QMDC SWNRM	On-going	
Measures of Success:	Reduction in Rope Pear, African Boxthorn, Green Cestrum infested areas. Ensure through comparison maps of harrisia cactus and mother of millions, that sites have decreased Monitor the impact of bio-control agents at released sites	S**uccess Indicators:** **Reduction of pest plant areas** **Release of bi-control agents**		

4.2 High Priority Animals

B	Early Detection and Eradication			
Plant Name	Locusts			
Priority in Adjacent Local Areas	Eliminate the spread of parthenium, work with neighbouring Local Governments to eliminate as well as reduce infestations			
Operational Objective	Provide advice to landholders and form locust committee when and where necessary			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Monitor and survey where Council has received complaints	MRC (LLO) LH	On-going	
	Assist Bio-Security Qld Officer in survey and control programs	DEEDI MRC (LLO) LH	On-going	
	Provide landholders and urban residents with advice and process required to eliminate pest plants from property	LH MRC (LLO)	On-going	
Measures of Success:	Reduced impact Implement action plans when required	S**uccess Indicators:** **Reduced impact on cropping areas**		

4.2 High Priority Animals

C	Containment			
Plant Name	Wild Horse			
Priority in Adjacent Local Areas	No wild horse infestations in neighbouring Local Government areas			
Control Information	Work in collaboration with DERM/DEEDI personnel to control pest animal within known sites			
Operational Objective	To reduce the impact wild horses are having on the natural environment			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Assist and support when and where requested	DEEDI DERM MRC (LLO)	On-going	

	Provide technical advise to landholders	MRC (LLO) LH Community	On-going	
Measures of Success:	Reduced number of wild horses within the Shire	**Success Indicators:** **No complaints of wild horses** **Improved revegetation in high impacted areas**		

4.2 High Priority Animals

D	Broadscale Management			
Plant Name	Wild Dogs, Rabbit			
Priority in Adjacent Local Areas	Reduce pest animal sightings/infestations			
Operational Objective	Increased land holder participation in wild dog management across the Shire. Integrated baiting programs with neighbour Shires. Actively participate in QDOG procedure Reduced rabbit infestation within the Shire. Work with DEEDI personnel to implement bio control to reduce rabbit numbers.			
Operational Actions	**Action**	**Who**	**When**	**Status**
	Monitor, map and record data on wild dog activities	MRC (LLO) LH MRCWDAG	On-going	
	Provide technical advise for the control	MRC (LLO) LH Community	On-going	
	Provide landholders and urban residents with advice and process required to eliminate pest animals	LH MRC (LLO)	On-going	
Measures of Success:	Reduce number of complaints, sightings and activities	**Success Indicators:** **Reduced complaints and impacts of pest animals**		

5.0 IMPLEMENTATION

This draft Maranoa Regional Council Pest Management Plan was submitted to the Minister for Natural Resources in August 2012.

The Minister judged that this plan satisfied the requirements of the *Land Protection (Pest and Stock Route Management) Act 2002* (QLD), and on 29 April 2013, advised council to adopt such plan.

In keeping with sections 30(2) and 32 of the Act, the council adopted the plan for presentation to the Minister on 25 July, 2012. (Resolution BM.200.12) Upon approval from the Minister, the Plan will be implemented and available for public inspection in both written and electronic form at the Council's office.

The Plan will remain current until 1 July 2017, with annual action plans enabling its implementation over that time. The annual action plan for 2013-14 will be reviewed for its effectiveness on or before 1 May 2013, as required by section 33(2) of the Act, and any shortfalls in the completion of its strategies will be addressed in the next year's plan.

As part of the process of implementation, Maranoa Regional Council has communicated to stakeholders their responsibilities, and is overseeing the coordination of pest management activities contained within this Plan.

Monitoring and evaluation processes (including the measurement of actions against stated success criteria) are in place to ensure the effectiveness of the plan.

Any amendments to the plan will require its resubmission to the minister for approval, and the old plan will be replaced upon the adoption of the new one.

6.0 CONCLUSION

Maranoa Regional Council will use available resources to implement this Pest Management Plan. Actions associated with high priority pests will be implemented initially with other priority work to be done as time and budgetary constraints permit.

Prevention is generally recognised as a more cost effective method than containment or eradication. Consequently Maranoa Regional Council also places a high priority on actions associated with hygiene management and awareness.

Maranoa Regional Council will continue to work with a range of stakeholders to implement this Plan and will undertake a regular review of actions, including how they are meeting the operational objectives through the stated success indicators.

APPENDIX ONE

Pest Plants and Animals Maranoa Regional Council

Common Name	Scientific Name
African Boxthorn	*Lycium ferocissimum*
African Love Grass	*Eragrostis curvula*
Asparagus Fern	*Asparagus aethiopicus 'Sprengeri' A. africanus and A. plumosus*
Bathurst Burr	*Zanthium spinosum*
Carp	*Cyprinus carpio*
Castor Oil Plant	*Ricinus communis*
Cats Claw Vine	*Macfadyena unguis-cati*
Cotton Tail	*Froelichia floridana*
Cumbungi	*Ttpha spp.*
Dingoes	*Canis familiaris dingo*
European fox	*Vulpes vulpes*
European rabbits	*Oryctolagus cuniculus*
Feral goat	*Capra hircus*
Feral pig	*Sus scrofa*
Fire Weed	*Senecio madagascariensis*
Giant Rat's Tail Grass	*Sporobolus pyramidalis and S. natalensis*
Green Cestrum	*Cestrum parqui*
Harrisa Cactus	*Eriocereus* spp.
Honey Locust	*Gleditsia tricanthos*
Lantana	*Lantana camara*
Lippia	*Phyla canescens*
Locusts	*Chortoicetus terminifera, Locusta migratoria, Austracris guttulosa*
Mesquite	*Prosopis glandulosa, P. pallid and P. velutina*
Mexican Poppy	*Argemone ochroleuca*.
Mice	*Mus domesticus*
Mimosa	*Acacia farnesiana*
Mother-of-Millions	*Bryophyllum* spp.
Noogoora Burr	*Xanthium occidentale*
Parkinsonia	*Parkinsonia aculeate*
Parthenium	*Parthnium hysterophorus*
Paterson's Curse	*Echium plantagineum*
Pimelea	*Pimelea elongate*
Prickly Acacia	*Acacia nilotica*
Prickly Pear	*(includes Velvety Tree Pear and Common Pest Pear) Opuntia stricta, O. tomentose*
Rabbit / Hare	*Oryctolagus cuniculus*
Rubber Vine	*Cryptostegia grandifilora*
Saffron Thistle	*Carthamus lanatus*
Salvinia	*Salvinia molesta*
Thornapples	*Datura spp.*
Tiger Pear	*Opuntia aurantiaca*
Turnip Weed	*Rapistrum rugosum*
Water Hyacinth	*Eichhornia crassipes*
Water Lettuce	*Pistia stratiotes*