

# Parthenium Weed National Strategic Plan Progress Review (2008 – 2009)



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## **Executive summary**

2008–09 has seen the National Parthenium Weed Management Group (PWMG) working closely with key natural resource management (NRM) stakeholders to undertake and support national management of parthenium weed.

There has been substantial resource support and the leveraging of funds totalling \$1.2 million from the New South Wales and Queensland Governments, regional NRM organisations, local governments and landholders in the management of parthenium weed. This has been the catalyst for a more than tenfold contribution that signifies the commitment, coordination and cooperation from these key organisations towards the management of parthenium weed at state and regional levels across northern Australia.

Good progress continues, with containment of a small parthenium weed infestation on Christmas Island. This is being undertaken by the Department of Agriculture and Food, Western Australia (DAFWA) and is supported by the Australian Government Attorney-General's Department. A service delivery agreement has been developed and is awaiting final approval that will secure a long-term commitment to parthenium management and support other biosecurity activities on the island.

Coordinated action has continued to successfully contain parthenium in Queensland and prevented further spread to other states and territories. This is despite good rainfall events occurring across Queensland in the 2008 summer period. Northern Territory and New South Wales currently do not have any known infestations and there have been neither reported sightings of parthenium weed in Western Australia nor reported sightings on major roads linking Northern Territory and Queensland.

Significant support to on-ground projects by key NRM stakeholders has contributed to the maintenance and containment of parthenium weed within Queensland. Contributions in 2008–09 have enabled additional leveraging of project funds in excess of \$1.1 million for addressing national priority actions and provide a basis for the development of long-term monitoring arrangements as outlined under legislative requirements.

A number of parthenium weed awareness products are available and have been distributed nationally to help raise community awareness of parthenium and provide confidence to undertake various management actions. Since 2004–05 the project has seen the production and national distribution of over 38 000 printed awareness products, including 25 different pull-up banners and over 15 000 copies of the parthenium 'best practice' management manuals distributed to key NRM stakeholders (primarily across northern Australia).

Parthenium weed has huge social implications as the plant can produce serious allergic reactions in humans. A recent small-scale health study conducted in Central Queensland has found that of the 207 participants surveyed, over 37% have tested positive for parthenium sensitivity. These findings have implications for the management of parthenium weed; there is a need to improve safe working practices and address potential health problems in communities where parthenium is established and improve health education where parthenium weed is a threat.

## Introduction

The intention of this report is to outline the progress made during the 2008–09 period towards the implementation of the Weeds of National Significance (WONS) Parthenium Weed National Strategic Plan.

Parthenium Weed (*Parthenium hysterophorus*) is an annual herb that aggressively colonises disturbed areas and has a serious impact on grazing and cropping industries with substantial costs to the community through reduced production and increased management costs. Large (self-regenerating) infestations of parthenium weed exist in many areas of Central Queensland. Serious infestations also exist in the south-east at Gatton and Kilcoy and southern parts of Queensland in the Maranoa–Balonne catchment.

Despite good rainfall events occurring across Queensland in the 2008 summer period, Northern Territory and New South Wales currently do not have any known infestations. There have also been no reported sightings of parthenium weed in Western Australia and no reported sightings on major roads linking the Northern Territory and Queensland.

Landholders within large infestation areas continue to implement current best practice management actions through increased knowledge of techniques and integration with grazing land management (GLM) practices. The effectiveness of parthenium biological control agents continues to vary, primarily due to seasonal and site-specific conditions experienced in many areas across Queensland. Management of isolated infestations continue to be treated and controlled; however, a stronger emphasis needs to be placed on linking parthenium management with principles of GLM.

Parthenium weed has huge social implications as the plant can produce serious allergic reactions in humans. A recent small-scale health study,<sup>1</sup> held within the Central Queensland area of Clermont, has found that of the 207 participants surveyed, over 37% have tested positive for parthenium sensitivity. Other outcomes of the study indicated:

- Male outdoor workers in 30–40 years age group have an increased risk of parthenium sensitisation.
- Females in contact with parthenium at home and at work have an increased risk of parthenium sensitisation.
- Direct contact with the plant is not necessary for sensitisation to occur.
- Relationship exists between allergic tendencies and parthenium sensitivity.

The findings point to increasing incidence of parthenium sensitivity, increasing incidence of allergy symptoms and in turn increasing demands on our health care services. There are implications for the management of parthenium weed in terms of:

- improving safe work management practices
- potential for reduced working capacity and loss of production output
- increased occupational health risk, leading to increased absenteeism
- potential impact on economy and lifestyles.

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<sup>1</sup> Parthenium Weed - Current Management & Health Effects of the Plant on Communities (Queensland Weeds Symposium, July 2009), Diane Goldsworthy

There is a need to address potential health problems in communities where parthenium is established and improve health education where parthenium weed is a threat.

The Parthenium Weed National Strategic Plan is comprised of four goals. The achievements against these goals are detailed in the report and the involvement of key stakeholders is also highlighted.

The strategy's goals are:

1. prevent the spread
2. awareness and commitment
3. reduce the impact
4. coordinate management.

The WONS Parthenium Weed National Strategic Plan has been under active implementation since 2001. A discussion of major achievements follows.

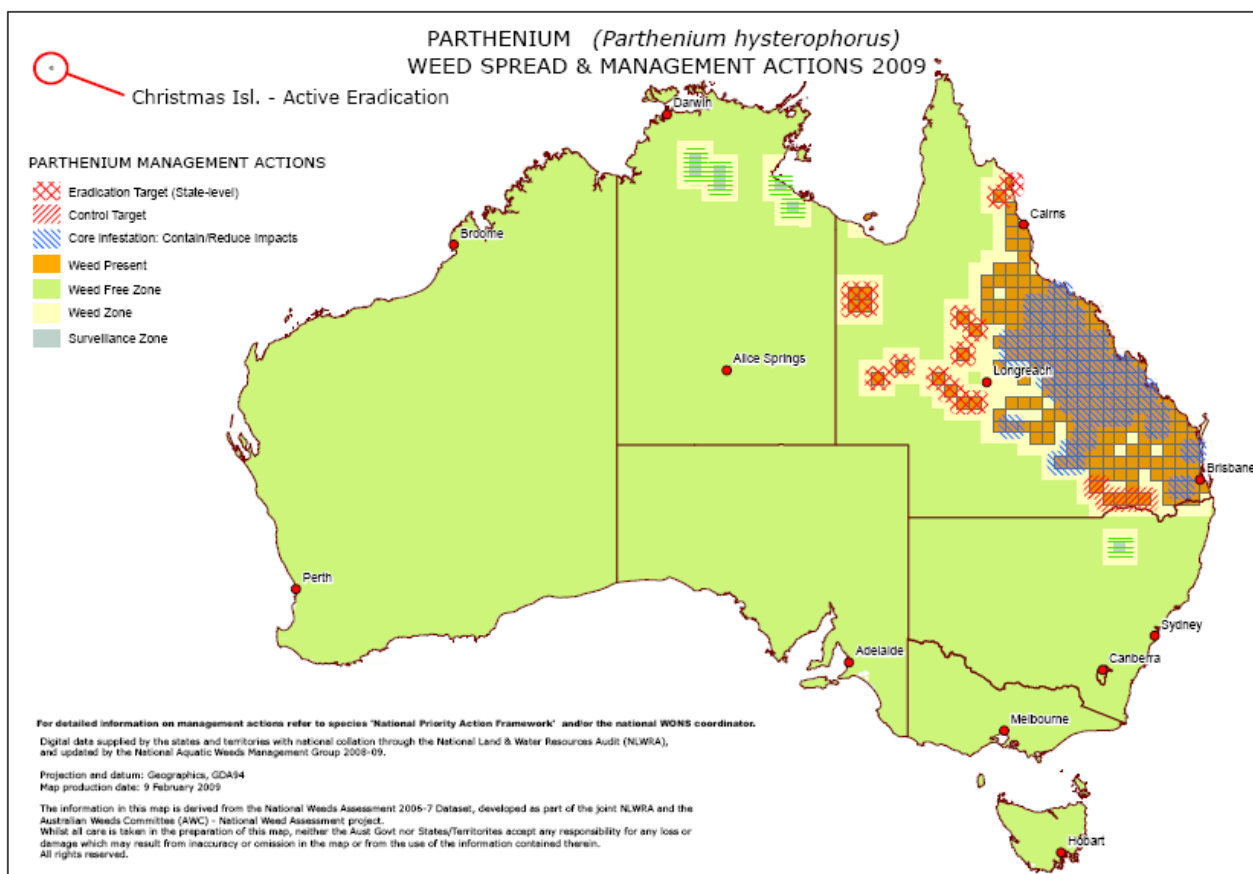
## Goals and achievements in 2008–09

### Goal 1: Prevent the spread

**Desired outcome: Parthenium weed is prevented from spreading to and impacting on new areas**

There are a number of active management actions being undertaken to prevent the spread of this weed to the majority of Australia and these are summarised in Figure 1.

**Figure 1. Parthenium weed national management actions 2008–09**



### Description of map zones/areas

- **Parthenium weed free area:** This is comprised of areas that are 'clean' or not currently infested with parthenium weed.
- **Active Eradication Area:** This comprises the whole of Northern Territory, New South Wales, and Christmas Island. Emphasis is on early detection and control of outbreaks as they occur. Northern Territory and New South Wales are at constant risk of invasion due to movement of stock, machinery, fodder and vehicles coming from Queensland.
- **Active Management Area:** This is comprised of areas where infestations do occur and landholders are actively managing infestations where considered feasible and integrating best management practices to contain and control infestations to prevent further spread.
- **Core Infestation Area:** This comprises areas where large 'self-regenerating' infestations occur from Central Queensland area. Infestation extends north from Central Queensland into the Charters Towers region and east to the coast, and south from Central Queensland into the Roma region and east into the Burnett. Emphasis is on integrated management incorporating strategic fencing, stock and pasture management and hygiene practices to prevent further spread.

Parthenium weed is widespread in identified areas of Queensland and there remains a very high risk of further spread to clean areas at both the intrastate and interstate level through the movement of vehicles, machinery, livestock and contaminated stock feed.

Good progress continues to be made in managing a small parthenium weed infestation occurring on Christmas Island. Infestations fall within two categories:

1. one industrial site
2. twenty urban infestations along roadsides /garden beds within settlement area.

Work is being undertaken by DAFWA and is supported by the Australian Government Attorney-General's Department. The detection and physical removal or treatment of all plants at the urban locations has prevented further seed set at these locations and it is expected that much of the viable seed bank has been treated. A service delivery arrangement for the control of noxious weeds on Christmas and Cocos Islands has been developed by DAFWA and submitted through the Office of Premier and Cabinet. The Australian Government Attorney-General's Department is awaiting final approval.

National coordinated action continues to prevent the spread of parthenium weed into the Northern Territory and New South Wales where there is a constant risk of invasion. Despite good rain occurring across Queensland in the 2008 summer period, Northern Territory and New South Wales do not have any known infestations. This is supporting parthenium management led by the New South Wales Government through grain harvester inspections at various Queensland – New South Wales border locations and roadside surveillance by New South Wales local governments. These initiatives support and complement the current \$188 000 commitment to maintaining an eradication objective for parthenium weed in New South Wales.

2008–09 has seen the progression of a number of activities within Queensland to support the containment and prevention of spread of parthenium weed nationally. Significant contributions from the Queensland Government, regional NRM organisations, local government and landholders have enabled additional leveraging of project funds. Total funds in excess of \$1.1 million include:

- Queensland Government (Blueprint for the Bush initiative) has supported parthenium management through upgrading of wash-down facilities and strategic on-ground control at selected locations across Queensland (\$30 000)
- Main Roads supports roadside spraying to control parthenium weed within Central Queensland areas (\$100 000), providing national benefits assisting in the reduction of the parthenium weed seed spread by vehicles and machinery.
- On-ground control projects occur at three highly strategic regions in Queensland and are aimed at containing and preventing further spread of parthenium
  - Kilcoy/Esk district (South East Queensland catchments)—15 properties, 5000 ha = \$66 000
  - Upper Bulloo and Warrego River catchments (South West NRM Group)—two project areas over 12 properties, 60 000 ha = \$210 100
- A rapid response project is underway within the Maranoa/Balonne area of Queensland Murray–Darling Basin, involving Queensland Murray–Darling Committee and four local government regional councils. Three new outbreaks have been recorded and treated—three properties, 10 ha = \$23 000.

### **Performance indicator—prevent spread**

- 75% of Australia remains free of parthenium weed, with all known outlier infestations under eradication.
- Monitoring for new outbreaks within the 'parthenium free area' is maintained, including the provision of plant identification material and continued support of reporting networks through key government agencies.
- No new infestations of parthenium weed found in New South Wales and the Northern Territory within the active eradication areas.
- Containment of parthenium weed within Queensland is continuing through the support and resourcing of key NRM stakeholders.
- Supporting upgrading of wash-down/clean-down facilities (in 2008–09) at strategic locations throughout Queensland to reduce the risk of further spread of parthenium weed.
- Increased awareness of the parthenium weed identification and reporting mechanisms available nationally.

### **Work-in-progress**

PWVG continues to work with state agencies and NRM regional organisations to support strategic priority sites - for containment programs within Queensland and eradication projects in New South Wales, Northern Territory, Western Australia, South Australia and Victoria. Several strategic areas (within Queensland) are 'of concern'. They include:

- Upper Bulloo, parts of the Warrego, Mitchell and Maranoa/Balonne catchments (south-western Queensland)
- Junction View (Gatton), Kilcoy and Burnett areas (south-eastern Queensland).

Financial uncertainty is impacting on delivery of regional NRM investment through regional NRM organisations. There is a need for greater coordination among NRM stakeholders to sustain strategic planning and cost-effective delivery of pest management programs. Stronger leadership is required at all levels of government to ensure implementation (at key strategic parthenium sites) can be maintained in order to provide state and national benefits.

## **Goal 2: Awareness and commitment**

**Desired outcome: The community is aware of parthenium weed and provided with quality information and skills to assist in its detection and reduction**

The PWMG has maintained a strong collaborative approach by working with key NRM stakeholders to ensure parthenium weed education and awareness information is targeted, relevant and delivered in a consistent and coordinated manner.

A number of parthenium weed awareness products are available and have been distributed nationally to help raise community awareness of parthenium and provide confidence to undertake various management actions. Since 2004–05 the project has seen the production and national distribution of over 38 000 printed awareness products, including 25 different pull-up banners and over 15 000 copies of the parthenium 'best practice' management manuals distributed to key NRM stakeholders (primarily across northern Australia).

Landholders within the 'core' infestation areas of Queensland are continuing to implement current best practice management actions through increased knowledge of control techniques and integration of pasture and stock management using GLM practices. Isolated infestations continue to be treated and controlled; however, a stronger emphasis needs to be placed on linking parthenium management with principles of GLM.

Awareness, product distribution, and promotion of the best practice management information continues to be supported by the National Coordinator through attendance at various field days and regional meetings, including support of the New South Wales Parthenium Taskforce Group.

### **Performance indicators—awareness and commitment**

- Increased coordination, commitment and contribution to parthenium weed education and awareness that complements best practice parthenium management.
  - Over 38 000 parthenium awareness products and 15 000 copies of the parthenium weed 'best practice' management manuals have been distributed nationally.
  - Implementation of parthenium best practice management is occurring in core infestation areas of Queensland.

### **Work-in-progress**

PWMG continues to work with state and territory governments and key regional NRM organisations regarding evaluation of the parthenium weed education and awareness program, including future product development.

### **Goal 3: Reduce the impact**

#### **Desired outcome: All isolated and scattered infestations are eradicated**

In Australia, parthenium weed presents the greatest potential impact to land used for grazing and has serious social implications in relation to the health risks associated with working and living with the plant. It also has the potential to become a major weed of cropping areas. The challenges for Australia are early detection, reporting and maintaining sustained control programs, including monitoring and preventing further spread to clean (free) areas.

PWMG's remains focused on working with NRM stakeholders to target nationally strategic parthenium weed areas. Emphasis is on building capacity of available resources to understand the importance of coordinated sustained efforts to maximise management programs for parthenium weed.

Over 2008–09, the containment of parthenium weed has been maintained despite good rainfall events occurring across Queensland in the 2008 summer period. The Northern Territory, Western Australia and New South Wales currently do not have any known infestations. The true extent of parthenium weed distribution and abundance in Queensland and other parts of northern Australia may only be realised through successive wet summer periods.

A 'rapid response' pilot project is continuing within the Queensland Murray–Darling Basin area and involves Queensland local governments. Three new outbreaks have been detected and controlled within the Maranoa district. This is a surprising result given the good rainfall events in the summer of 2008–09.

The essence of the pilot project is to develop a capability for detection, reporting and control of new parthenium weed outbreaks that exist outside the identified core infestation area. Australian Government funding of \$40 000 has leveraged matching contributions from stakeholder organisations to ensure identified areas within the Darling Downs and Maranoa/Balonne areas of southern Queensland remain 'free' of parthenium weed.

Good progress is being made with a collaborative research project involving The University of Queensland in partnership with Queensland Murray–Darling Committee, Burnett–Mary NRM Group (BMRG) and Powerlink. This project is in the second year phase and has leveraged project funds in excess of \$304 000 for 2008–09 period. The project focuses on:

- study of parthenium weed seed bank dynamics including examining heat treatments methods of killing parthenium seed
- examining the composition of weed flora present in the sludge of vehicle wash-down facilities will also look at the efficiency of wash-down facilities
- examining the pasture species capable of competitively displacing parthenium, including how climate change might change competitive abilities or affect reproductive biology of parthenium weed.

#### **Performance indicators—reduce the impact**

- increased national coordination of parthenium weed planning and management through linkage with key NRM stakeholders (state and territory agencies, NRM regional organisations and local governments)

- investment from the Australian government provides seed funding in key strategic areas to encourage and promote the commitment and cooperation of stakeholders. On average there continues to be a tenfold increase in contributions leveraged from key stakeholder organisations to support parthenium management
- international research collaboration linking industry and supporting ways and opportunities to improve parthenium weed management.

### **Work-in-progress**

PWMG strongly supports further investigation into the associated health and social impacts on people working and living in parthenium weed–infested areas.

What are the implications to human health and the environment if parthenium weed is allowed to spread? Findings from a recent small-scale health study held within the Central Queensland area found that of the 207 participants surveyed, over 37% have tested positive for parthenium sensitivity. There are issues relating to the prevalence of parthenium weed sensitivity within the community and it has associated implications for occupational health processes and safe work practices.

Further health studies are required to provide a better understanding of health problems in communities where parthenium is established and health education where parthenium is a threat, based on:

- larger study in the Clermont–Moranbah area to obtain a better picture of the impact of parthenium on communities
- comparative study in an area where parthenium is not present for sensitivity and allergy profiles.

Outcomes of this research will greatly assist in improving occupational health service to identify, monitor and treat parthenium-sensitised and potentially ‘at risk’ individuals. This leads to improving safe work practices dealing with parthenium and raising community awareness of parthenium sensitisation and the health implications.

Parthenium weed research trials are continuing across a number of areas in Queensland. Significant collaboration from regional NRM organisations and industry has enabled the The University of Queensland to use a number of international PhD students from Pakistan and Vietnam to participate. This allows for shared knowledge of parthenium weed management and this knowledge can be translated to other countries.

Further research work has been identified and is aimed at providing a better understanding of parthenium and its management (both current and future needs).

#### **Impacts:**

- more information required on impacts on health and prevention measures
- impacts on native plant biodiversity and understanding how parthenium (and management approaches) will perform in a changing climate.

#### **Weed seed spread:**

- better understanding of retention of weed seed viability within slurry and sludge deposits of wash-down facilities
- other methods of weed seed transfer = storms and flooding, river movement, livestock, seed lots etc.

- high risk vectors? Methods need to be determined for seed kill to help eradication process.

Mapping:

- opportunity to develop predictive spread mapping under the present and future climate
- identification of future potential hot spots for spread
- assessment of how the national coordinated action plan will stand up in the future under a changed climate and increased threat from parthenium.

Best practice management:

- updating best practice management with new ideas on management and spread prevention, issues to do with health and crop virus spread
- best practice management should be extended to cover the issue of management in and around crops and to highlight the tobacco streak virus problem now costing Queensland more than \$5 million per annum.

## **Goal 4: Coordinate management**

### **Desired outcome: Parthenium weed management is coordinated at a national level**

The National Weeds Strategy has provided a framework for WONS to be effectively managed through the collaboration and cooperation of all stakeholders, including governments at all levels.

The WONS Parthenium Weed National Strategic Plan, developed in 2000, outlined a series of strategic actions and opportunities for greater collaboration and cooperation across states and territories to deliver four desired outcomes:

- Parthenium weed is prevented from spreading to and impacting on new areas.
- The community is aware of parthenium weed and provided with quality information and skills to assist in its detection and reduction.
- The impacts of established parthenium weed infestations are reduced.
- Parthenium weed management is coordinated at a national level.

The establishment of the PWMG in 2001 brought together representatives from various state and territory agencies, regional NRM organisations, industry, local governments and community groups. The role of PWMG is to oversee the implementation of the Parthenium Weed National Strategic Plan and its current membership continues to be reviewed to ensure its relevance to meet the needs of current WONS initiatives.

PWMG annually reviews the progress of implementation of the national strategy. Progress of strategy implementation is communicated through a rolling annual report that details progress against specific strategic goals. A national review of the parthenium program was not undertaken in 2008–09 and will occur during the 2009–10 period. Evaluation of the strategic plan will assist with the development of next phase of parthenium weed management under the WONS program.

PWMG continues to drive the implementation of priority actions through the collaboration of state and territory agencies, regional NRM organisations and local governments. Emphasis is on targeting sites that are nationally strategic and local coordination can achieve ongoing monitoring and follow-up control.

### **Performance indicators—harness national management**

- PWMG conducts annual review and progresses implementation of the WONS Parthenium Weed National Strategic Plan.
- national coordination of parthenium weed planning and management through increased linkages with key NRM stakeholders (state and territory agencies, regional NRM organisations and local governments)
- increased capability of stakeholders to deal with early detection of and rapid response to parthenium weed invasion.

## Conclusion

Cooperation and coordination across stakeholder jurisdictions continues to be the critical component for effective management of parthenium weed in Australia. Significant resource contributions from state and territory agencies, regional NRM organisations, local governments and landholders has continued in 2008–09. This has seen the maintenance of parthenium weed containment in Queensland. This has helped prevent the spread of parthenium weed into the Northern Territory, New South Wales and other states and territories. This work is complementing national priority actions and has significant national benefits.

Financial uncertainty is impacting on delivery of regional NRM investment through regional NRM organisations. The challenge remains for stakeholders at all levels to coordinate resources and maintain an active approach to parthenium weed, particularly for the containment and spread prevention of parthenium within Queensland. There needs to be sustained resourcing into strategic areas and support to detect and eradicate new infestations in 'clean' areas as soon as practical. This aspect will produce the greatest national benefits.

PWMG strongly supports further investigation into the associated health and social impacts on people working and living in parthenium weed–infested areas. What are the implications to human health and the environment if parthenium weed is allowed to spread? There are issues relating to the prevalence of parthenium weed sensitivity within the community and it has associated implications for occupational health processes and safe work practices. Further health studies are required to provide a better understanding of health problems in communities where parthenium is established and health education where parthenium is a threat, based on:

- larger study in the Clermont–Moranbah area to obtain a better picture of the impact of parthenium on communities
- comparative study in an area where parthenium is not present for sensitivity and allergy profiles.

Outcomes of this research will greatly assist in improving occupational health services to identify, monitor and treat parthenium-sensitised and potentially 'at risk' individuals. This will lead to improving safe work practices dealing with parthenium and raising community awareness of parthenium sensitisation and the health implications.

## Strategic parthenium weed investment for 2008–09

The financial table (see page 16) reflects expenditure incurred over 2008–09 period and includes contributions, both cash and in-kind, of key NRM stakeholders to progress the implementation of key parthenium weed on-ground projects supported by funding from the Australian Government.

Reference to:

- **ID 52965 – \$60 000\* (Develop rapid response capability to eradication of new outbreaks outside core infestation areas)**

Contributors:

○ Queensland Murray–Darling Basin Committee	\$35 000
○ Queensland local govts	\$24 500
○ Department Agriculture and Food, Western Australia	\$18 809
<b>Total (other contributions)</b>	<b>\$78 309</b>

\*Project concluded 30 June 2009

## Regional NRM organisations, Industry, local governments and landholders supporting parthenium weed management in 2008–09

• QMDC—support parthenium mgt	\$139 000
• South West NRM—support control upper Bulloo/Warrego catchment	\$92 775
• Qld local govts—supporting parthenium control	\$61 000
• SEQ Catchments—support Kilcoy infestations	\$32 000
• Desert Channels Qld—supporting parthenium control	\$9000
• Fitzroy Basin	\$26 700
• The University of Queensland—support research trials	\$219 000
• Powerlink—support research trails (UQ)	\$25 000
• Burnett–Mary region—support infestations within Burnett	\$30 000
• Landholder support to parthenium mgt	\$123 925
<b>Total contributions expended in 2008–09</b>	<b>\$758 400</b>

## Queensland government supporting parthenium weed management in 2008–09

• Environment Protection Authority—parthenium weed projects	\$46 000
• Department of Main Roads—roadside spraying in Central Highlands	\$100 000
• QPIF ‘Blueprint for the Bush’ funding initiative:	
➢ Managing Weed Seed Spread in the Wet Tropics	\$11 000
➢ Upgrade existing facility—Emerald Shire Council	\$11 000
➢ Supporting strategic management—southern Gulf	\$8000

**Approximate total contributions expended in 2008–09** **\$176 000**

## New South Wales government supporting parthenium weed management in 2008–09

• NSW coordination—oordination, taskforce group and publications	\$25 473
• Grants to NSW local govts (parthenium weed projects)	\$31 000
• Matched by NSW local govt	\$31 000
• Border inspection costs, grain harvester inspections(Qld–NSW border)	\$101 054

**Total contributions expended in 2008–09** **\$188 527**

**Total stakeholder investment to parthenium management 2008–09** **\$1 201 236**

**Australian Government investment to parthenium weed 2008–09** **\$153 800**

## 2008–09 financial table (parthenium weed)

2008–09		Planned budget		Actual expenditure	
Employees and positions held <i>(parthenium weed only)</i>		Recipient's contributions (without GST)	Funds paid by the Commonwealth (without GST)	Recipient's contributions expended (without GST)	Commonwealth funds expended (without GST)
Coordinator salary and on-costs			*47 500		48 128
Management, admin. support, research officers (QPIF)		19 887			
NRM groups, state /territory community support inputs and DWM projects		53 158		#1 201 236	
<b>A</b>	<b>Total employment costs</b>	<b>\$73 045</b>	<b>\$47 500</b>	<b>\$1 201 236</b>	<b>\$48 128</b>
	<b>Operating cost items</b>	<b>Recipient's contributions (without GST)</b>	<b>Funds paid by the Commonwealth (without GST)</b>	<b>Recipient's contributions expended (without GST)</b>	<b>Commonwealth funds expended (without GST)</b>
	PWMG Management Group travel and meeting expenses	35 000	31 800		15 935
	General operating (travel)		14 500		8122
<b>B</b>	<b>Total operating costs</b>	<b>\$35 000</b>	<b>\$36 300</b>		<b>\$24 057</b>
<b>C</b>	<b>Total cost (without GST) (A + B)</b>	<b>108 045</b>	<b>\$83 800</b>	<b>\$1 201 236</b>	<b>\$72 185</b>
<b>D</b>	<b>GST (10%)</b>	<b>\$10 804</b>	<b>\$8380</b>	<b>\$120 123</b>	<b>\$7218</b>
<b>E</b>	<b>Total cost (including GST)</b>	<b>\$118 849</b>	<b>\$92 180</b>	<b>\$1 321 359</b>	<b>\$79 403</b>

\*Coordinator expenditure ONLY (does not include other parthenium weed funding)

# Refer to strategic parthenium weed investment (page 14)

Expenditure analysis (page 19) outlines:

- ❖ stakeholder contributions towards parthenium weed
- ❖ National Parthenium Weed Management Group (PWMG) expenditure in 2008–09

## References

**Anon (2000)** *Weeds of National Significance – Parthenium Weed Strategic Plan*, Commonwealth of Australia and the National Weeds Strategy Executive Committee

**Reeves, A., Rayner B., and Dodd J. (2009)** – *Progressive Report on parthenium weed program, Christmas Island, January 2009*, Dept of Agriculture and Food, Western Australia

**Pers. comm. Brett Carlsson**, Pest Management Coordinator, Desert Channels Queensland Inc – *Report on parthenium weed activities, July 2009* (email)

**Pers. comm. Sharyn Adie**, Project Officer Queensland Primary Industries and Fisheries – *Progress Report on parthenium weed related activities funded under “Blueprint for the Bush Initiative, August 2009* (email)

**Pers. comm. Nora Brandli**, Regional Pest Management Officer, Burnett–Mary for regional NRM – *Report on parthenium weed activities, August 2009* (email)

**Pers. comm. Darren Marshall**, Pest Management Coordinator, Queensland Murray Darling Committee Inc – *Report on parthenium weed activities, August 2009* (email)

**Pers. comm. Bruce Lord**, Catchment and Regional Coordinator, South East Queensland Catchments Inc – *Report on parthenium weed activities, August 2009* (email)

**Pers. comm. Cathy Mylrea**, Programs Coordinator, South West NRM Group, – *Report on parthenium weed activities in region, August 2009* (email)

# Appendices

## Appendix 1. Parthenium weed key achievements 2008–09

### Prevent Spread

- No known parthenium outbreaks in New South Wales and Northern Territory.
- No sightings or no other outbreaks recorded/found in Western Australia.
- Two wash-down/clean-down facilities have been upgraded in Queensland with funding support from Queensland government at a total cost of \$22 000. Facilities located at:
  - Wet Tropics Area—three portable facilities (\$11 000)
  - Fitzroy Basin—upgrade at Emerald (\$11 000)
- NSW DPI continues to maintain, support coordination of parthenium management including inspection staff undertaking grain harvester inspections at various Qld–NSW border locations at cost of \$188 000.
- PWMG continue to progress DWM project (ID 52965) as follows:
  - Rapid response project within Queensland Murray–Darling Basin. Project progress includes three new outbreak found, 10 ha treated covering three properties.
  - Final stage of parthenium weed eradication management program completed on Christmas Island supported by DAFWA and Australian Government Attorney-General’s Department.
    - Service delivery arrangement (SDA) awaiting sign-off approval. SDA will enable long-term management of parthenium and other biosecurity matters on Christmas Island.
- All roadways continued to be inspected and treated where practical with local governments in Central Queensland also treating main roads to ensure consistency of inspection and treatment.
  - Main Roads support parthenium roadside spraying program within the Central Highlands area at cost of \$100 000.

### Awareness and commitment

- High level of co-operation/coordination between states and territories regarding parthenium weed education and awareness, including
  - 38 000 promotional materials produced and distributed nationally since 2004–05, 7000 stickers, 15 000 ID cards and 15 000 magnets.

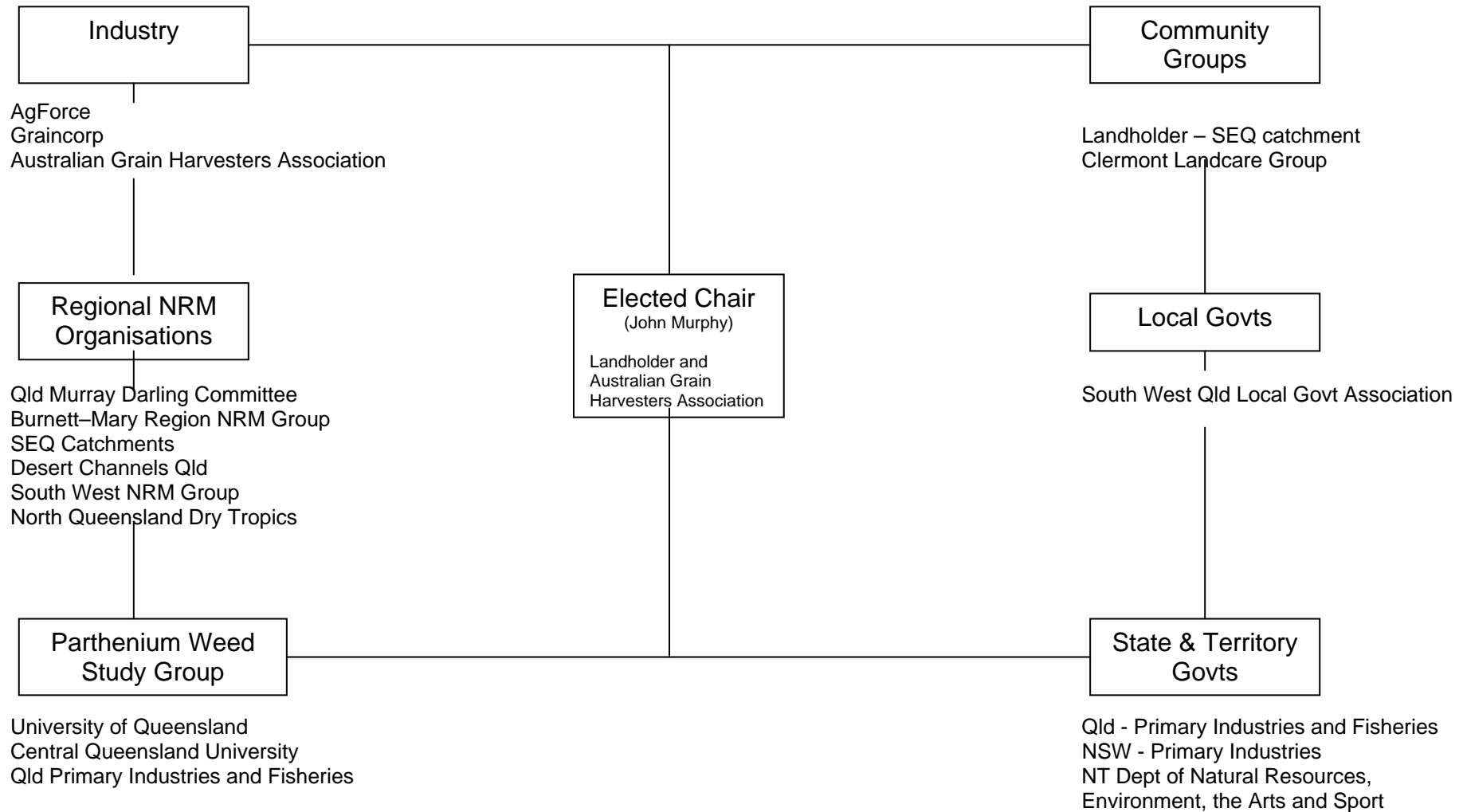
### Reduce the impact

- Parthenium Best Management Practice (BMP) continues to be incorporated at property and local levels via distribution through a number of key NRM stakeholders—Queensland local governments, Queensland regional NRM organisations and state agencies in Queensland, New South Wales and Northern Territory.
  - Total 15 000 copies of parthenium best practice manual has been distributed nationally since 2004–05.
- Continued support from regional NRM organisations and landholders across Queensland at a cost of \$1.1 million for management of parthenium weed at strategic locations. Supporting spread prevention and impact reduction and providing national benefits. Strategic areas targeted include:
  - Upper Bulloo Catchment (South West NRM Group)—12 properties (60 000 ha)
  - Queensland National Parks—three project sites (1489 ha)
  - Somerset Catchment areas (SEQ Catchment Group)—10 properties (5000 ha).

### Coordinate Management

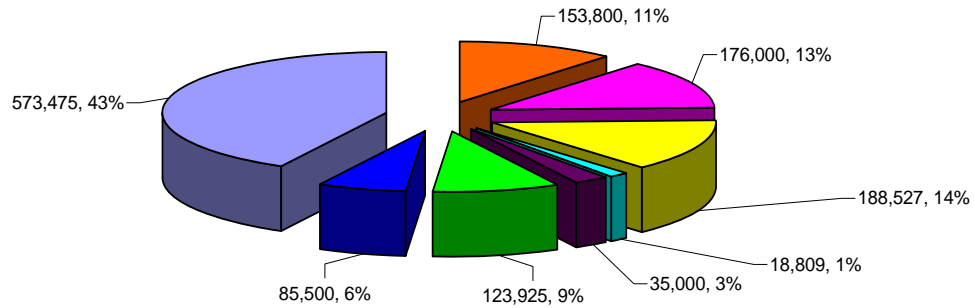
- PWMG has been established for over seven years and continues to review its membership to ensure it remains relevant to meet NRM and WONS current agenda.
- PWMG has completed the following DWM projects ID 52965 - Rapid Response Capability (\$60 000).
- PWMG and coordinator continue to work with NRM organisations to ensure parthenium strategies are included into regional pest management planning and funding arrangements.

## Appendix 2. National Parthenium Weed Management Group structure



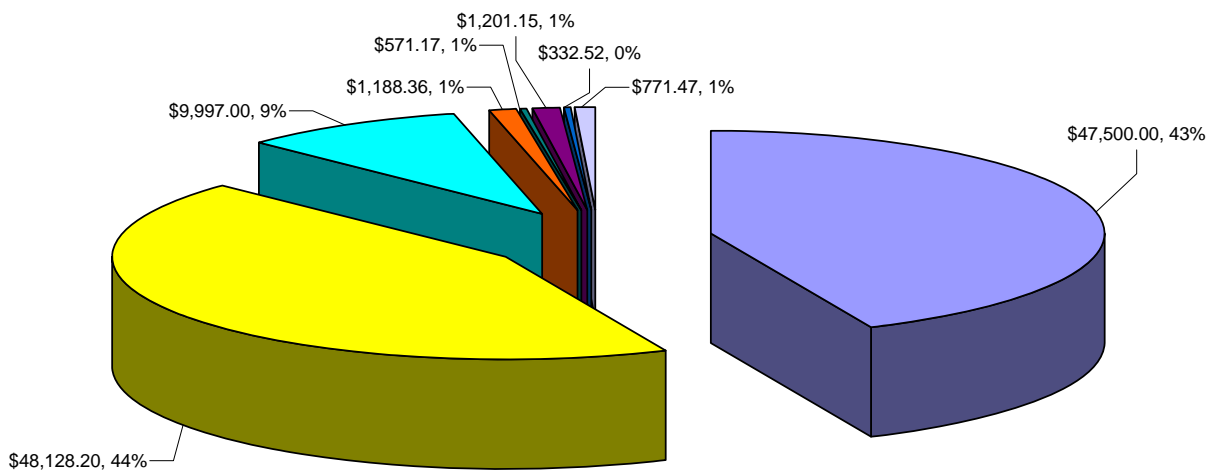
### Appendix 3. Parthenium weed expenditure analysis 2008–09

Stakeholder Contributions towards Parthenium Mgt 2008/09



- Australian Govt - 2007/08 contribution towards Parthenium mgt - Coord Posn (\$93.8K) & Rapid response Project 52965 (\$60K)
- Qld State Govt - QDPI&F ('blueprint for the bush') - washdown/cleandown facilities (\$30K) , Qld EPA - control on Nat Parks (\$46K), Qld Main Roads - roadside spraying in Central Highlands (\$100K)
- NSW DPI - 'supporting Parthenium Eradication in NSW' (\$188.5K)
- DAFWA - 'supporting Parthenium Eradication on Christmas Island (Project 52965)' (\$18.8K)
- QMDC & Local Govt support to Project 52965 (\$35K)
- Landholders supporting Parthenium Mgt (\$123.9K)
- Local Govts supporting Parthenium Mgt - (\$85.5K)
- Regional NRM Organisations, Industry & Landholders supporting Parthenium Mgt - QMDC, (\$139K) - DCQ (\$9K), Fitzroy Basin (\$26.7K), South West NRM Group (\$92.7K) & SEQ Catchments (\$32K), Burnett Mary Region (\$30K), University Queensland (\$219K), SEQ Catchme

Coordinator Expenditure - Parthenium Weed 2008/09



- Australian Govt Funds provided for Coordinator Posn (Parthenium Weed Only) - \$47,500
- Salaries & Employee related Expenses - \$48,128
- Travel - \$10,000
- Hire Car/Petrol - \$1,188
- Network & Computer - \$572
- Seminars/Conferences - \$1,201
- Consumables & Training & Telephones - \$333
- Other Expenses - Printing, Frieght, Catering & other service costs - \$771

## Appendix 4. Acronyms

<b>BMRG</b>	Burnett–Mary Regional Group
<b>CPMG</b>	Capricorn Pest Management Group
<b>CQ</b>	Central Queensland
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DCQ</b>	Desert Channels Queensland
<b>DECWA</b>	Department of Environment and Conservation, Western Australia
<b>FBA</b>	Fitzroy Basin Association
<b>LGAQ</b>	Local Government Association of Queensland
<b>PWMG</b>	Parthenium Weed Management Group
<b>NRM</b>	Natural Resource Management
<b>NSW DPI</b>	New South Wales Department Primary Industries
<b>NT</b>	Northern Territory
<b>NRETAS</b>	Natural Resources, Environment, The Arts and Sport
<b>QLD</b>	Queensland
<b>QMDC</b>	Queensland Murray Darling Commission
<b>QPIF</b>	Queensland Primary Industries and Fisheries
<b>SEQ Catchments</b>	South East Queensland Catchments
<b>SWNRM</b>	South West Natural Resource Management
<b>WONS</b>	Weeds of National Significance
<b>VICDPI</b>	Victoria Department Primary Industries