

# Queensland Weed Spread Prevention Strategy



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## Summary

The *Queensland Weed Spread Prevention Strategy* is an integral part of the vision to minimise or prevent the spread of weeds in Queensland. The strategy is specifically designed to meet Objective 2.6.3 of the *Queensland Weeds Strategy 2002–2006*: To minimise the spread of weeds to new areas in the state.

This strategy does not include issues relating to threat assessment, national border controls or responses to new incursions into Queensland. It was developed by the Working Group for the Prevention of Weed Spread, comprising people from state government agencies, industry, and natural resource management groups.

To achieve this vision, an action plan has been developed based on the following seven broad goals:

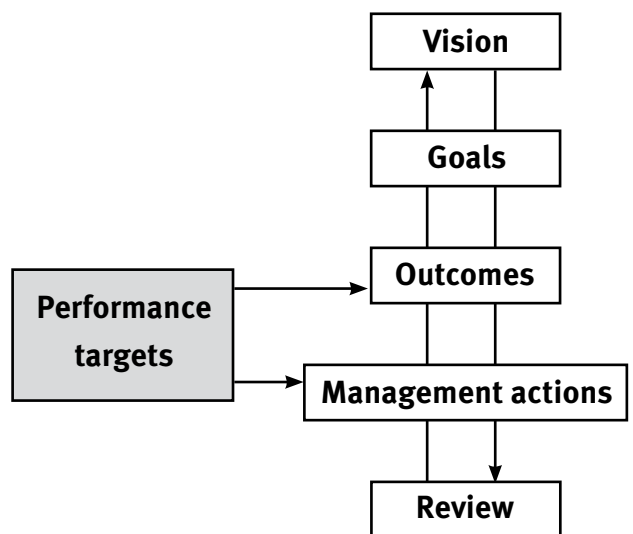
1. Incorporate the need to prevent weed spread into the work practices of industry and organisations.
2. Motivate the community, industry and government to actively prevent the spread of weeds.
3. Identify and protect clean areas.
4. Develop innovative, practical and cost-effective solutions to minimise weed spread.
5. Resource and coordinate consistent actions within the state and work towards achieving consistency with other states and territories.
6. Maintain a strong legal foundation for weed spread prevention.
7. Review, monitor and evaluate actions to achieve continuous improvement.

The action plan comprises outcomes, management initiatives, responsibilities, priority ranking, and performance targets for each goal. This will provide clear direction to all parties involved in addressing the problem of weed spread and enable them to make the best use of available resources. The Working Group for the Prevention of Weed Spread will coordinate and monitor the implementation of the strategy.

## 1. Purpose of the strategy

This strategy has been designed to achieve the vision of minimising the spread of weeds in Queensland. It presents a series of steps that break down the enormous task of controlling the spread of weeds into small tasks that are practical and achievable.

Seven broad goals are identified, each of which has a number of outcomes. To achieve each outcome, agencies and organisations have been allocated management actions, and performance targets and criteria have been determined to evaluate how outcomes and goals are being met. Priority rankings, from one (highest priority) to three (lowest priority), have been assigned for each management action. These relationships are represented in Figure 1.



**Figure 1 Relationship between the components of the strategy**

Weeds have a significant adverse impact on primary production, ecosystem biodiversity and the conservation values of the state. They can also have a detrimental effect on human health. The annual cost to Queensland is approximately \$600 million in lost production and control costs. One of the most cost-effective ways of controlling weeds is to prevent their spread.

Weeds have the potential to infest most of the state. Many weeds, such as parthenium and giant rat's tail grass, can flower and bear fruit throughout most of the year, depending on climatic conditions. Their seeds are small and almost all of them can be readily spread by human activity.

Although preventing the spread of weeds is difficult, it is the cheapest and most effective method of weed control. Some of the potential carriers for 'hitchhiking' weed seeds are machinery, equipment, garden waste, livestock, grain, produce, fodder, landscaping material, extractive materials, native animals, wind, water and humans.

Many weeds have physical characteristics that allow them to be easily transported over long distances. Viable seeds and other plant material can be spread accidentally, especially by human activity. Vehicles can readily spread the small seeds of parthenium and giant rat's tail grass, just a few seeds of which can easily colonise and dominate new areas. Other weeds, such as the waterweed cabomba, can spread even if just a part of the plant gets caught on a boat or trailer and is moved to another river or dam. The seeds of prickly acacia can survive eight days inside a cow and still germinate once the animal has defecated.

Two major strategies developed to manage weeds—the *National Weeds Strategy 1999* and the *Queensland Weeds Strategy 2002–06*—include the need to prevent the spread of weeds as one of their principles. These strategies also contain other principles for effective weed management such as:

- coordinating weed management at all levels, from landholders to the federal government
- integrating weed management into the management of natural resource and agricultural systems
- establishing consultation and partnerships between local communities, industry groups, state government agencies and local governments.

It was recognised that a specific Queensland weed spread strategy was necessary to coordinate the many activities needed to combat weed spread. Such activities include the development and

implementation of codes of practice to manage the spread of weeds by many industries. Regional natural resource management organisations are examining the appropriate weed spread management actions required for their specific areas. Consistent standards to manage vehicle and machinery cleaning and clean-down facilities are being developed by the Queensland Working Group for the Prevention of Weed Spread. This group has also initiated a range of weed spread prevention activities across the state. These activities build on a number of initiatives developed in the recent past.

## 2. About the strategy

This strategy will continue the implementation of the weed spread prevention objectives of the *National Weeds Strategy 1999* and the *Queensland Weeds Strategy 2002–06*. It will also help to implement the principles of pest management and the weed spread provisions of the *Land Protection (Pest and Stock Route Management) Act 2002*.

The strategy aims to provide clear directions in combating the spread of weeds so that:

- human and financial resources can be obtained and allocated
- stakeholder priorities are better reflected
- on-ground and policy tools can be developed
- gaps in knowledge and practice can be identified
- awareness-raising information can be developed
- innovative ideas can be developed and implemented
- research can be targeted.

The strategy is specifically designed to meet Objective 2.6.3 of the *Queensland Weeds Strategy 2002–06*: To minimise the spread of weeds to new areas in Queensland. It does not include issues relating to threat assessment, national border controls or responses to new incursions into Queensland.

### 2.1 Scope

The weed spread prevention strategy is within the scope as that of the *Queensland Weeds Strategy* but will also include management practices, such as best practice hygiene methods, that may limit the spread of insect pests and soil-borne diseases.

Both strategies are aimed at weeds that have significant economic, environmental or social impacts. As outlined in the *Queensland Weeds Strategy* the following groups of plants will be targeted:

- introduced (exotic) invasive weeds, including weeds of grazing land, aquatic weeds, environmental weeds, and weeds declared under the *Land Protection (Pest and Stock Route Management) Act 2002*
- native plants (including aquatics) that have been introduced to areas outside their native range and have become weeds in their new environment
- weeds of crops and sown pasture.

## 2.2 Stakeholders

A number of stakeholders, including several industry groups, were involved in developing this strategy (see Appendix 1). Stakeholder responsibilities reflect those documented in the *Queensland Weed Strategy* and include a strong industry component (see Appendix 2). A number of the management actions will require industry involvement.

## 2.3 Development

The Queensland Working Group for the Prevention of Weed Spread developed the strategy. This working group comprises representatives from state government departments, industry and natural resource management groups. Delegates from these organisations attended a workshop to identify and prioritise measures to reduce weed spread. A second workshop and several meetings were held to critique the document developed after the first workshop. Once completed, this document was made available to all stakeholders and interested parties for comment. The final strategy document was completed once all comments received had been addressed.

## 2.4 Pathways involving human activity

The strategy identifies all major pathways for weed spread into and within Queensland, and lists activities that will help to minimise spread via these routes.

The major pathways identified were:

- **Transportation over land** including agricultural machinery, stock carriers, cars, trucks, buses, all-terrain vehicles, construction equipment and fire fighting equipment, trains, hikers, horses, and pets, and also via tankers and pipelines when transferring water (containing aquatic weeds) from one storage to another.
- **Transportation over water** including all types of ships (including cruise ships), recreational boats and other large or small craft including industrial, tourist, recreational and law enforcement vessels, military crafts, barges, semi-submersible dry docks, oil derricks (freshwater, marine or both), and stowaways in holds.
- **Tourism** including those who travel for recreation, business or relocation purposes. Generally, tourists have a high potential for spreading weeds, particularly in national parks and protected areas.
- **Movement of plants and plant parts** including fruit, vegetables, nuts, roots, seeds and edible flowers; plants ‘in trade’ (intentionally released—authorised or unauthorised—or escaped); ‘hitchhiker seed’ such as weed seeds that have contaminated other seed for sowing or eating, or transported in water, food, growing media, nesting or bedding; and particularly, the dumping of garden waste in parks, reserves and council dumps.
- **Transportation of live food animals and animal parts** including the movement of stock and/or their contaminated waste (containing viable weed seed from a food source such as prickly acacia) and ‘hitchhikers’ on or in live animals and in their water, food, growing medium, nesting or bedding.
- **Plant and aquarium trade** including importation and supply of plants, plant parts, seeds and aquatics, and sites of deliberate introduction such as botanical gardens, nurseries, landscaping and garden suppliers, research facilities, public and private plantings, and aquariums/water gardening facilities.
- **Movement of construction and landscape material** including the extraction and storage of soil, gravel, sand, mulch and rocks.
- **Gas, power and mineral resources** including the mining of resources and development and maintenance of movement corridors.
- **Waste disposal** including the illegal dumping, unsafe disposal and movement of weed waste.
- **Ecosystem disturbance** including habitat creation, restoration or enhancement; forestry use; road construction; provision of utilities; land clearing; development; stream channels; construction of highways, railroads and utility rights of way; bushfires and fire management; grazing; agriculture; and extreme weather events such as cyclones and drought.

The measures identified to minimise weed spread from each pathway are shown in Table 1.

**Table 1: Management actions identified to minimise weed spread via major pathways**

Pathway for potential weed spread involving human activity	Management action*											
	CoP	EMS	Comm	WRA	Educ & aware	R&D	Resources made available	Clean-down facilities	Compliance/evaluation/audit/surveillance and monitoring	Third party inspections	Incentives/levies	Other
Transport—land	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transport—water	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Transport—shipping	✓	✓	✓	✓	✓	✓	✓		✓	✓		
Tourism			✓		✓			✓			✓	
Plants and plant parts	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓
Transport of live food, animals and parts	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Plant trade	✓	✓	✓	✓	✓		✓		✓		✓	✓
Aquarium trade	✓	✓	✓	✓	✓		✓		✓		✓	✓
Construction and landscape material	✓	✓	✓		✓	✓		✓	✓	✓	✓	
Gas, power and mineral resources	✓				✓				✓			✓
Waste disposal				✓	✓			✓			✓	✓
Ecosystem disturbance	✓	✓	✓		✓			✓				✓

\*Abbreviations: CoP—codes of practice; EMS—environmental management systems; Comm—communication; WRA—weed risk assessments; Educ & aware— education and awareness; R&D—research and development

### 3. Goals

The goals of the weed spread prevention strategy are:

1. Incorporate policy and actions to prevent weed spread into the work practices of industry and organisations.
2. Motivate the community, industry and government to actively prevent the spread of weeds.
3. Identify and protect clean areas.
4. Develop innovative, practical and cost-effective solutions to minimise weed spread.
5. Resource and coordinate consistent actions within the state and work towards achieving consistency with other states and territories.
6. Maintain a strong legal foundation for weed spread prevention.
7. Review, monitor and evaluate actions to achieve continuous improvement.

### 4. Action plan

The outcomes and management actions seen as necessary to help achieve each of the goals are described in the action plan below. The plan also determines:

- who should be responsible
- a timeline for completion
- a priority ranking from one to three, where one is the top priority
- relevant performance targets for each management action.

Additional details on possible implementation activities to support the management actions are given in Appendix 3.

Goal 1: Incorporate policy and actions to prevent weed spread into the work practices of industry and organisations					
Outcomes	Management actions	Completed by whom/when	Rank	Performance targets	
1.1 Codes of practice and plans are developed and implemented to minimise weed spread	1.1.1 Develop a national model code of practice	National coordinator/2007	2	Model code of practice developed and endorsed by Australian Weeds Committee	
	1.1.2 Develop industry-specific codes of practice to ensure uniform standards	Industry organisations and state coordinator/ongoing	1	Two industries developing and adopting a code of practice each year	
1.2 Weed spread prevention is incorporated into existing industry and government standards and programs	1.2.1 Include weed prevention in existing vendor declarations and accredited agricultural programs	Industry/ongoing	1	Two industries have added weed spread prevention requirements into programs	
	1.2.2 Add the requirements of the <i>Land Protection (Pest and Stock Route Management) Act 2002</i> to the Seed Industry Association of Australia National Code of Practice for Labelling and Marketing of Seed for Sowing	State coordinator/2007	2	National code of practice amended	
	1.2.3 Include weed spread prevention measures in industry induction procedures	Industry/ongoing	2	Two industries have included weed spread prevention measure in industry induction procedures	

**Goal 2: Motivate the community, industry and government to actively prevent the spread of weeds**

Outcomes	Management actions	Completed by whom/when	Rank	Performance targets
2.1 A greater awareness and understanding of weed spread issues among community, industry and government stakeholders is gained	2.1.1 Plan and coordinate education and awareness activities	State coordinator/ ongoing	1	Dedicated person appointed for 3 years
	2.1.2 Develop communication strategy based on pathway analysis	Dedicated person/ 2010	2	Communication strategy developed and 3 key activities implemented

**Goal 3: Identify and protect clean areas**

Outcomes	Management actions	Completed by whom/when	Rank	Performance targets
3.1 An improved early detection capability is established	3.1.1 Develop and resource a process to have trained and committed people to identify and record new plant incursions	DPI&F, EPA, LG/2007	1	10 Stakeholders committed to the project
	3.1.2 Provide support to the National Weeds Detection Project	DPI&F, EPA, Weeds CRC/ongoing	1	Support mechanisms developed and active
	3.1.3 Develop and maintain a notification network to ensure that knowledge of new incursions goes to all stakeholders	DPI&F, EPA/2008	1	Network developed and active
3.2 An improved rapid response capability is established	3.2.1 Support the implementation of an improved state rapid response procedure, including response funding e.g. the IPMC Blue Book process	EPA, DPI&F,NRW/2007	1	100% of new incursions dealt with by the government agencies, if agreed to be of state significance
3.3 A culture of cleaning vehicles and machinery is established, and a network of strategically located clean-down facilities is developed across Queensland	3.3.1 Audit existing facilities to determine: <ul style="list-style-type: none"> <li>adequate waste disposal</li> <li>water usage</li> <li>occupational health and safety</li> <li>effectiveness in removing weed reproductive material</li> </ul>	Vehicle hygiene subgroup/2007	1	60% of public clean-down facilities in Qld meet the criteria listed in the state management policy for clean-down facilities
	3.3.2 Develop and implement a state management policy for clean-down facilities including: <ul style="list-style-type: none"> <li>criteria for building clean-down facilities</li> <li>criteria for locating new facilities</li> </ul>	Vehicle hygiene subgroup/2007	1	Management policy developed and implemented

<b>Goal 3: Identify and protect clean areas (continued)</b>				
<b>Outcomes</b>	<b>Management actions</b>	<b>Completed by whom/when</b>	<b>Rank</b>	<b>Performance targets</b>
	<ul style="list-style-type: none"> <li>criteria for portable facilities</li> <li>criteria for upgrading existing facilities</li> <li>standards for waste disposal, workplace health and safety, water efficiency, and effectiveness of soil and organic matter removal</li> <li>examine the feasibility of a user pays or other systems, to subsidise running of the facilities</li> </ul>			
3.4 Clean and infested areas are identified and mapped for priority weed species	3.4.1 Develop and utilise a standardised system for identifying and mapping the location of weed species	DPI&F/2007	1	100% of Queensland mapped for the presence or absence of a priority species each year
	3.4.2 Resolve issues of data custodianship and sharing	All stakeholders	3	
	3.4.3 Establish containment areas to contain critical weeds to core areas	DPI&F, WONS, NRM groups, LG	3	50% of outlier infestations are identified in strategic plan and eradicated
3.5 Purchasers are informed of the weed status of products and land	3.5.1 Promote awareness and wide use of Weed Hygiene Declarations.	DPI&F/2007	1	
	3.5.2 Promote the concept of a written notice covering land which informs potential buyers of the weed status of properties	WGPWS/2010	3	
3.6 A commercial fee-for-service weed inspection service is established for: <ul style="list-style-type: none"> <li>vehicles, machinery and equipment</li> <li>materials and products</li> <li>land</li> </ul>	3.6.1 Develop a system to endorse suitably trained people to inspect vehicles and machinery	State coordinator/2007	1	50 accredited inspectors by 2010
	3.6.2 Develop accredited training endorsed by the Queensland Rural Training Council for vehicles and machinery inspectors	State coordinator/2009	2	
	3.6.3 Work with other states and territories to develop a system for inspecting property other than vehicles and machinery	National coordinator/2010	3	

**Goal 3: Identify and protect clean areas (continued)**

<b>Outcomes</b>	<b>Management actions</b>	<b>Completed by whom/when</b>	<b>Rank</b>	<b>Performance targets</b>
3.7 Mechanisms for reducing weed spread through ecosystem disturbance are developed	3.7.1 Review weeds as a threatening process under the <i>Environment Protection and Biodiversity Conservation Act 1999</i>	DPI&F/2008	3	Included as an action in the state and/or national weeds strategies
3.8 Key corridors are identified and managed to prevent or minimise weed spread	3.8.1 Adopt a risk management approach to manage weeds on roads, riparian areas and other areas considered as corridors for weed spread	Landholders, LG/ongoing	2	70% of LG and state pest management plans identify weed corridors
3.9 The disposal and processing of weeds and garden waste is safe	3.9.1 Develop guidelines for the safe disposal or processing of declared weeds and garden waste	WGPWS/2008	3	Guidelines developed and implemented
3.10 Weed spread prevention requirements are a component of emergency response plans for natural disasters	3.10.1 Develop guidelines to minimise weed spread in natural disasters. Have guidelines included into emergency response plans	DPI&F/2008	2	Guidelines developed

<b>Goal 4: Develop innovative, practical and cost-effective solutions to minimise weed spread</b>				
<b>Outcomes</b>	<b>Management actions</b>	<b>Completed by whom/when</b>	<b>Rank</b>	<b>Performance targets</b>
4.1 Research that focuses on weed spread minimisation	4.1.1 Bring together researchers and innovative thinkers and stakeholders from a range of areas to identify research requirements	DPI&F, industry/ 2007	2	Two research and development projects funded by 2010
	4.1.2 Identify funding sources and apply for funding to undertake research and development projects	DPI&F, industry/2008	2	
	4.1.3 Undertake priority research	State government, LG	2	
	4.1.4 Make research findings available to stakeholders and incorporate them into policy and practices	All stakeholders	2	
4.2 Incentives are developed to minimise weed spread	4.2.1 Examine the feasibility of market-based incentives in developing an accreditation system and promoting suppliers of weed-free products (in particular hay, mulch, grain and seed)	WGPWS/2010 and ongoing	2	One or more actions implemented by 2010
	4.2.2 Develop incentives for the construction and landscape material suppliers to supply weed-free products, e.g. preferred supplier status and promotional material		3	
	4.2.3 Expand nursery accreditation schemes to promote the selling of non-weedy plants		3	
	4.2.4 Examine the use of a levy/ insurance system to apply to any new species entering Queensland, where the levy or insurance funds go towards controlling new incursions		3	
	4.2.5 Work with the nursery industry, aquarium industry, agriculture (including new crops and pasture improvement) and genetic resource industry centres to develop a self-regulated weed risk assessment program		3	
	4.2.6 Develop an aquarium accreditation scheme to promote 'river friendly' aquariums	National Aquatic Weed Management Group/2010	3	

**Goal 5: Resource and coordinate consistent actions within the state and work towards achieving consistency with other states and territories**

Outcomes	Management actions	Completed by whom/when	Rank	Performance targets
5.1 Management actions in this strategy are resourced until completion if they continue to meet requirements of 7.2	5.1.1 Identify opportunities for resourcing the implementation of this strategy, including the appointment of a coordinator	WSPWG with input from key stakeholders/2006	1	Resources are identified and allocated to implement the highest priority management actions.
5.2 Major stakeholders are actively involved in the development of weed spread prevention initiatives	5.2.1 Maintain the state working group for the prevention of weed spread and associated subgroups	DPI&F with input from key stakeholders/ongoing	1	Management group maintained with a minimum of four meetings per year.
	5.2.2 Stakeholder participation actively sought to implement outcomes	WSPWG	1	60% of stakeholders represented at this group or allied subgroups
5.3 The need for consistency across Australia as stated in the Australian Weed Strategy and associated plans (e.g. National Weed Spread Prevention Action Plan) is promoted and supported	5.3.1 Promote a national approach to weed spread management through the Australian Weeds Committee	DPI&F/ongoing	1	Funding to develop a national strategy and to implement key actions obtained
	5.3.2 Seek funding and multi-jurisdictional support to develop a national implementation plan to minimise weed spread	DPI&F/2006	1	
	5.3.3 Work with the Australian Government to strengthen quarantine procedures	DPI&F/ongoing	2	

<b>Goal 6: Maintain a strong legal foundation for weed spread prevention</b>					
<b>Outcomes</b>	<b>Management actions</b>		<b>Completed by whom/when</b>	<b>Rank</b>	<b>Performance targets</b>
6.1 Weed seed spread provisions of the <i>Land Protection (Pest and Stock Route Management) Act 2002</i> are complied with	6.1.1	Enforce weed spread provisions of the <i>Land Protection (Pest and Stock Route Management) Act 2002</i>	LG, DPI&F/ongoing	1	Compliance activities specific to weed spread prevention undertaken by LG and state government
	6.1.2	Undertake awareness campaigns to improve compliance	DPI&F	1	
6.2 Weed spread prevention provisions in Queensland legislation are consistent and effective	6.2.1	Examine the feasibility of a permitted list for plants	DPI&F, LPC/2008	1	Discussion paper presented to LPC
	6.2.2	Continuously review and enhance the weed spread prevention provisions of the <i>Land Protection (Pest and Stock Route Management) Act 2002</i>	DPI&F, LG/ongoing	2	A review of all Queensland legislation pertaining to weed spread
	6.2.3	Review weed spread prevention requirements in State Acts to assess if they are consistent, encompassing and complementary	DPI&F, NRW, EPA/2009	2	DPI&F and NRW legislation reviewed, key actions identified, and a process to address inconsistencies developed
6.3 Progress is made towards weed spread prevention provisions being integrated into other natural resource management activities	6.3.1	Examine the potential for inclusion of weed spread prevention in the planning and assessment process under the <i>Integrated Planning Act 1997</i> and other natural resource management Acts	DPI&F, LG, NRM bodies/2009	2	Two Acts contain weed spread prevention requirements
	6.3.2	Facilitate consistent weed spread management on leasehold land			
6.4 Audit processes that ensure weed spread prevention is practised are investigated for feasibility	6.4.1	Examine the feasibility of enforceable audit processes for established guidelines such as industry codes of practice	DPI&F and stakeholder group/2008	3	A study is completed on the feasibility of enforceable audit processes

<b>Goal 7: Review, monitor and evaluate actions to achieve continuous improvement</b>				
<b>Outcomes</b>	<b>Management actions</b>	<b>Completed by whom/when</b>	<b>Rank</b>	<b>Performance targets</b>
7.1 Baseline data on management actions is collected and made available, and assessment criteria are established	7.1.1 Develop criteria to assess performance in meeting strategy outcomes 7.1.2 Collect data to assess performance against criteria	DPI&F and stakeholder groups/2007	2	Assessment of performance undertaken annually for life of strategy
7.2 The effectiveness of management actions in preventing weed spread is monitored and assessed	7.2.1 Include monitoring and evaluation components in all implementation plans	WGPWS/ongoing	2	60% of plans to implement actions include monitoring and evaluation components
7.3 The weed spread prevention strategy is updated every 12 months and reviewed after 5 years	7.3.1 Evaluate the actions that were implemented and their success in preventing weed spread	WGPWS/2008	2	70% of actions fully implemented

\*Details of individuals and groups referred to in column 3:

State coordinator—State Weed Spread Prevention Coordinator (DPI&F Senior Project Officer Weed Spread)

National coordinator—Coordinator position funded through Natural Heritage Trust

DPI&F—Queensland Department of Primary Industries and Fisheries

NRW—Queensland Department of Natural Resources and Water

WGPWS—Working Group for the Prevention of Weed Spread (comprising government and industry representatives)

Vehicle Hygiene Subgroup—Vehicle Hygiene Subgroup of the WGPWS

LPC—Land Protection Council

## Acronyms

CSIRO	Commonwealth Scientific and Industrial Research Organisation
DMR	Department of Main Roads (Qld)
DPI&F	Department of Primary Industries and Fisheries (Qld)
EPA	Environmental Protection Agency (Qld)
LG	Local government
LGAQ	Local Government Association of Queensland (Qld)
LPC	Land Protection Council
NRM groups	Natural resource management groups
NRW	Department of Natural Resources and Water (Qld)
Weeds CRC	Cooperative Research Centre for Australian Weed Management
WGPWS	Working Group for the Prevention of Weed Spread
WONS	Weeds of National Significance

# Appendixes

## Appendix 1 Stakeholders involved in developing this strategy

- AgForce
- Australian Fodder Industry
- Australian Livestock Transport Association
- Capricorn Pest Management Group, Fitzroy Basin Association
- Department of Natural Resources and Water
- Department Primary Industries and Fisheries—Land Protection
- Energex
- Environmental Protection Agency
- Grain Harvesters Australia
- Graincorp
- Interagency Pest Management Committee
- Livestock Transport Association
- Local Government Association of Queensland Inc.
- Department of Main Roads
- National Parthenium and Rubbervine Coordinator
- Queensland Rail
- Queensland Murray Darling Basin Committee
- Queensland Resources Council
- Queensland Rural Industry Training Council Inc.
- Southern Gulf Catchments
- State Land Pest Management Committee
- Stock feed manufacturers
- Training providers (vehicle inspections)
- Weed Research organisations

## **Appendix 2 Stakeholder responsibility for implementing weed management in Queensland (adapted from the Queensland Weed Strategy)**

### **Department of Primary Industries and Fisheries (DPI&F)**

DPI&F has responsibility for:

- providing research, policy and legislation development for introduced invasive weeds
- planning, strategic control programs, data collection, and awareness and extension of information for introduced invasive weeds
- supporting local governments to control introduced invasive weeds (declared and non-declared)
- provision of information for landholders on native woody weeds and weeds of crops and pastures
- ensuring any genetic material imported or released is assessed for its potential to become a weed in line with the draft Code of Ethics and Good Practice for the evaluation and release of pasture plants
- managing declared plants and other significant weeds on areas under its control.

### **Department of Natural Resources and Water (NRW)**

NRW has responsibility for:

- ensuring weed management policy is included in natural resource management.
- managing declared plants and other significant weeds on unallocated state land and other areas under its control.

### **Environmental Protection Agency (EPA)**

EPA has responsibility for:

- monitoring and regulating any environmental impacts of weed management methods
- providing input into policy for weeds with environmental impacts
- promoting awareness of these impacts
- controlling declared plants and other significant weeds in protected areas, such as National Parks, and in state forest areas, forest reserves and other areas under its control.

### **Department of Main Roads (DMR)**

DMR has responsibility for:

- implementing weed management practices to prevent the spread of existing problem weeds and the incursion and spread of new weeds
- actively participating in local government area working groups established to develop local government area pest management plans.

### **Queensland Health**

Queensland Health has responsibility for:

- maintaining public health and safety concerning the use of poisons to control pests (including enforcement of legislation)
- maintaining a role in the regulation of gene technology (in particular the genetic manipulation of crops).

### **Australian Government**

The Australian Government has responsibility for:

- implementing international border protection, including regulating the import and export of plant material
- managing Commonwealth lands, for example defence establishments, national parks and world heritage sites and other holdings
- honouring international treaties and contributing to global environmental initiatives.

### **Inter-governmental committees**

Committees have responsibility for providing forums for agencies and organisations to gain agreement on significant weed management issues. National committees that deal with weed issues include the Australian Weeds Committee (AWC), the Natural Resource Management Standing Committee (NRMSC), and the Natural Resource Management Ministerial Council (NRMMC).

### **Local governments**

Local governments have responsibility for:

- controlling declared weeds (including those declared under local law) on all land under their control, including stock routes, local roads and town commons
- controlling other weeds that have a significant impact in the above areas to meet community expectations
- fulfilling a key on-the-ground role in administering the *Land Protection (Pest and Stock Route Management) Act 2002*
- surveying and monitoring weed infestations and enforcing control on private land
- developing local government area pest management plans
- promoting awareness in line with their roles in the memorandum of understanding between DPI&F and LGAQ for the administration of the *Land Protection (Pest and Stock Route Management) Act 2002*.

### **Industry organisations**

Industry organisations have responsibility for:

- promoting awareness of weed issues and the need for early and sustained action regarding weed management among their members
- becoming increasingly involved in the development of guidelines and protocols.

### **Community groups**

Community groups have responsibility for:

- promoting awareness of weed problems among their members and the community
- mapping and monitoring of weeds
- planning and implementing weed management, including catchment and regional weed management strategies.

### **Land Protection Council**

The Land Protection Council has responsibility for:

- making recommendations to the Minister of Primary Industries and Fisheries on strategic matters for declared plants.

### **Tertiary education institutions**

Universities and other educational facilities play a vital role in linking academic research to practical natural resource problems. In the area of weed management, they are:

- undertaking and promoting research
- training and educating groups and individuals in pest management science and technology
- ensuring genetic material released is assessed for weed potential in line with the draft Code of Practice for Evaluation and Release of Tropical Pasture Plants.

### **Commonwealth Scientific and Industrial Research Organisation (CSIRO)**

The CSIRO has responsibility for:

- undertaking and promoting research into natural resource issues, including weed management
- ensuring genetic material released is assessed for weed potential in line with the draft Code of Practice for Evaluation and Release of Tropical Pasture Plants.

### **Cooperative Research Centre for Australian Weed Management (Weeds CRC)**

The Weeds CRC undertakes weed-specific research and community education activities.

Other Cooperative Research Centres, such as CRC for Tropical Savanna Management, may have programs that include weed impact and management components

### **Private and public landholders**

All landholders have weed management responsibilities, including:

- preventing weeds from spreading from their land
- controlling weeds declared under the *Land Protection (Pest and Stock Route Management) Act 2002* and local laws
- producing products that are free from weed contamination
- taking steps to minimise the introduction onto their land of any declared weeds or weeds that have significant impacts.

### **Vocational and professional associations**

The Weed Society of Queensland has a significant role to play in promoting commitment to weed issues in the state and in assisting in awareness-building and educational activities. One of the ways in which the society contributes is in the organisation of state, national and international symposiums and conferences.

## Appendix 3      **Activities identified to help implement management actions**

### **Codes of practice**

- Develop and implement codes of practice to minimise spread of weed, seed, soil and plant diseases, and pest animals. The codes of practice should
  - be achievable, affordable and realistic
  - be applicable over a long time period
  - include an audit process.
- Develop a national model code of practice that covers:
  - standards
  - harvesting
  - livestock
  - all machinery
  - entry to and exit from property
  - husbandry.
- Develop specific codes of practice to prevent new infestations:
  - from industries and organisations using or managing water
  - as a result of the movement of infested fodder, hay or mulch
  - through the live animal transport industry
  - through the quarrying and transportation of construction and landscaping material
  - through mining or the generation and transportation of gas, power and mineral resources
  - by the nursery industry and genetic resource industry centres
  - by the aquarium trade
  - by infrastructure construction and maintenance
  - by the gas and petroleum industries
  - via dams.

### **Education and awareness**

Develop education and awareness plans and a communication strategy that may include:

- targeting young people for mid-to-long-term education
- providing practical field days and workshops within each industry group
- programs in the electronic media
- roadside awareness of ‘weeds’ and facilities
- ‘2010—The Year of Weed Seed Spread Prevention’
- targeting tourists including recreation and sporting users, horse riders, campers, boats, pig shooters, trail bike riders, deer hunters, bushwalkers, and users of caravans, 4-wheel drive vehicles and mountain bikes, and movement of contaminants via shipping
- industries that grow and transport fodder, hay, mulch or grain
- increasing industry awareness of the risks associated with weeds and the requirements of the *Land Protection (Pest and Stock Route Management) Act 2002*.

## **Research and development**

Potential research projects include:

- rapid detection of weed seeds through the use of spectrophotometry
- development of modifications to machinery and vehicles that aid in preventing the accumulation and further spread of soil and organic matter
- development of sprays that either retard germination or kill seeds for use on vehicles and machinery
- methods to kill or prevent germination of weed seeds that are contaminants of other plants or plant parts, such as grain and stock feed
- methods for the safe and effective disposal of collected weeds
- biocontrol or other control mechanisms that target increased mortality of seeds or prevention of seed set
- equipment to limit weed seed spread via water storage, water extraction or movement of quarry materials
- determining the weed spread potential of various types of livestock, birds and wild animals
- investigating options to promote the germination of weed seeds.

## **Legislation and policies**

Potential improvements to existing legislation and policies include:

- enhancing present legislation to prevent weed spread from infested areas especially of Class 1 weeds
- expanding the need for a written notice attached to land so potential buyers become aware of the weed status of properties, thus enhancing the status of clean properties
- examining the feasibility of a permitted list for plants entering Queensland
- identifying Acts that involve the movement of potential sources of contaminants and/or land disturbance
- liaising with relevant government officers to include weed spread provisions within legislation, regulations, policies or standards
- enhancing existing guidelines for the use of stock routes to minimise the risk of spread by stock and others using these routes
- enhancing requirements for leaseholders to control weeds within boundaries in line with potential lease conditions (the wording of the lease would mean leaseholders with vast tracts of weed-ridden land need to either do something about the problem or be faced with the non-renewal of leases)
- developing a consistent government approach for the use of agricultural species with the potential to become weeds.

