Wild Dog Management Strategy 2011–16
# Contents

About this strategy ........................................... ii
Acronyms ................................................... iii
Summary ...................................................... iv

1. Introduction ............................................. 1
   1.1 Background ........................................ 1
   1.2 Purpose of the strategy ......................... 12
   1.3 Scope .............................................. 12
   1.4 Challenges for managing wild dogs .......... 14
   1.5 Principles of pest management .............. 15

2. Strategic plan .......................................... 16
   2.1 Inside the Wild Dog Barrier Fence .......... 17
   2.2 Outside the Wild Dog Barrier Fence ....... 20
   2.3 Peri-urban zone .................................. 22
   2.4 Community engagement and improvement .. 24
   2.5 Conservation of dingoes ....................... 27

3. Evaluation .............................................. 29

4. Opportunities and constraints ....................... 30
   4.1 Implementation of the strategy .............. 30
   4.2 Possible constraints ............................ 30

5. Stakeholder responsibilities ......................... 31

6. Bibliography ........................................... 35

Appendix 1 ................................................ 37
   Summary of the biology and ecology of the dingo (Fleming et al. 2001) .................................................. 37

Appendix 2 ................................................ 38
   Statutory framework for wild dog control at time of publication ................................. 38

Appendix 3 ................................................ 41
   Communication pathways ......................... 41

Appendix 4 ................................................ 42
   The nil tenure planning process to wild dog management .................................................. 42
   Development of local area management plans ................................................................. 42
   Benefits of the planning process ................ 43
   Further reading ...................................... 44
About this strategy

This strategy is the result of an extensive review of the Queensland Wild Dog Management Strategy 2002 by the Queensland Dog Offensive Group (QDOG) and incorporates the results of public consultation on the draft strategy. Over 60 submissions were received and the comments have been used to finalise the strategy.

In 2008, the Queensland Government commissioned an independent review into wild dog management in Queensland. Undertaken by Mr Peter Kenny, past president of Agforce, the review focused on the content and implementation of the 2002 strategy. The review found that the strategy was fundamentally sound, but would benefit from updating with more recent data and research findings.

The Queensland Government has taken action to address key recommendations of the review.

The review made a particular recommendation to improve the leadership of wild dog management in Queensland to oversee the ongoing implementation of the strategy. Long-term success will depend on a ‘culture change’ among landowners so that collective action to control wild dog populations on an ‘area basis’ becomes part of normal business.

The formation of QDOG provides vital leadership for wild dog management across Queensland. QDOG is a subcommittee of the Biosecurity Queensland Ministerial Advisory Council (BQMAC) and is comprised of representatives from AgForce, local government, the Queensland Conservation Council, the Department of Environment and Resource Management and the community. Biosecurity Queensland has an ex officio member on QDOG and provides the secretariat.

This strategy, while similar in approach to the 2002 strategy, incorporates improvements in knowledge and techniques and aims to address the social issues that can hinder effective wild dog management.

Since 2002, the Queensland Government has provided leadership in wild dog research. Some of the practical results of this research are:

- more effective baiting regimes based on a better understanding of wild dog behaviour
- better knowledge of wild dog movements, which enables predictive control practices
- development of improved control methods
- an increased understanding of how environmental factors influence wild dog behaviour, which allows more effective control
- evaluation of more humane and effective traps.

One of the issues highlighted in the 2002 strategy was the need to provide information about wild dogs to people moving into rural residential areas. The Being Dog Aware compilation of extension material has helped address this issue.

Biosecurity Queensland has worked with the Paroo community to demonstrate the importance of community involvement and the formation of local wild dog advisory committees.

The Wild Dog Barrier Fence (WDBF) has been improved significantly in the last decade, with over one thousand kilometres of fence upgraded or replaced. The fence is now an effective barrier and its economic effectiveness has been proven by a recent review (Goswami 2009).

This strategy provides an effective pathway for all stakeholders to implement these improvements and achieve long-term, effective wild dog management.
## Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAWS</td>
<td>Australian Animal Welfare Strategy</td>
</tr>
<tr>
<td>AVAQ</td>
<td>Australian Veterinary Association Queensland Branch</td>
</tr>
<tr>
<td>BQMAC</td>
<td>Biosecurity Queensland Ministerial Advisory Committee</td>
</tr>
<tr>
<td>CBA</td>
<td>cost–benefit analysis</td>
</tr>
<tr>
<td>DEEDI</td>
<td>Department of Employment, Economic Development and Innovation</td>
</tr>
<tr>
<td>DERM</td>
<td>Department of Environment and Resource Management</td>
</tr>
<tr>
<td>ESD</td>
<td>ecological sustainable development</td>
</tr>
<tr>
<td>GIS</td>
<td>geographical information system</td>
</tr>
<tr>
<td>ICM</td>
<td>integrated catchment management</td>
</tr>
<tr>
<td>LG</td>
<td>local government</td>
</tr>
<tr>
<td>NRM</td>
<td>Natural Resource Management groups</td>
</tr>
<tr>
<td>QDOG</td>
<td>Queensland Dog Offensive Group (a subcommittee of the Biosecurity Queensland Ministerial Advisory Council)</td>
</tr>
<tr>
<td>QPWS</td>
<td>Queensland Parks and Wildlife Service</td>
</tr>
<tr>
<td>RSPCA</td>
<td>Royal Society for the Prevention of Cruelty to Animals</td>
</tr>
<tr>
<td>VPC</td>
<td>Vertebrate Pests Committee</td>
</tr>
<tr>
<td>WDBF</td>
<td>Wild Dog Barrier Fence</td>
</tr>
<tr>
<td>WDMAC</td>
<td>Wild Dog Management Advisory Committee</td>
</tr>
<tr>
<td>1080</td>
<td>sodium fluroacetate</td>
</tr>
</tbody>
</table>
Summary

Wild dogs in Queensland have a number of adverse impacts. They attack livestock, prey on native species, spread disease, dilute ‘dingo’ genetics and threaten human safety and the general enjoyment of rural residential properties. The diverse nature of these impacts means that an integration of planning and control practices across local, regional, state and national levels is required. A blanket approach to wild dog management is not effective.

Wild dogs are present in all areas of Queensland. In the remote and far western areas, the percentage of dingoes is higher, whereas in closely settled areas there is a higher percentage of hybrid animals.

The challenges to the effective management of wild dog impacts in Queensland are significant.

Changing land use, juxtaposition of different land uses, environmental factors, the increasing proportion of hybrid animals and varying community attitudes are some of these challenges.

As wild dogs are declared Class 2 pest animals, land managers in Queensland—private individuals, companies, local and state government agencies—have a legal responsibility under the Land Protection (Pest and Stock Route Management) Act 2002 to control wild dogs on their land.

This strategy sets a framework for coordinating the actions of all stakeholders, which will maximise the effective use of physical and economic resources used for wild dog management in Queensland.

Vision

The impact of wild dogs on Queensland’s biodiversity, agricultural assets and social values is minimised.

Desired outcomes

The strategic actions for wild dog management in Queensland will be delivered, based on five desired outcomes. The first three of these desired outcomes are based on management zones, the other two are common to all zones.

Desired outcomes based on management zones

1. Zero tolerance of wild dogs inside the WDBF
   - Reduce wild dog numbers and impacts to as close to zero as is practicable.

2. Control wild dogs elsewhere in the state
   - Achieve effective control of wild dogs across all tenures.

3. Reduce wild dog impacts in the coastal, peri-urban and rural residential management zones
   - Wild dog impacts in the coastal, peri-urban and rural residential management zones are reduced through community action.
Desired outcomes common to all zones (statewide)

4. The community is informed and committed to wild dog management and has the most current control methods and management techniques available
   - Develop and implement a communication and extension program to ensure landholders are aware of their responsibility in rural areas
   - Develop and implement a communication and extension program to ensure that all stakeholders are aware of their responsibility and the need to control wild dogs in peri-urban areas
   - Develop improved control practices.

5. Conservation of dingo populations in Queensland
   - Maintain an understanding of currently available science on dingo genetic identification techniques and population ecology
   - Manage populations of dingoes of conservation significance
   - Balance the conservation of the dingo with other management objectives, including the protection of rural enterprises and public safety.
1. Introduction

1.1 Background

1.1.1 Definitions

The terms ‘wild dog’, ‘feral dog’, ‘dingo’ and ‘dingo hybrid’ mean different things to different people. To avoid confusion, the following definitions are used in this strategy:

- **wild dogs**—all wild-living dogs (including dingoes, feral dogs and hybrids)
- **dingoes**—native dogs of Asia, selectively bred by human beings from wolves. Present in Australia before domestic dogs. Pure dingoes are populations or individuals that have not hybridised with domestic dogs or hybrids
- **domestic dogs**—a dog, other than a dingo or dingo hybrid, that is fed and kept by someone
- **hybrids**—dogs resulting from crossbreeding of a dingo and a domestic dog, and the descendants of crossbred progeny
- **feral dogs**—wild-living domestic dogs
- **free-roaming dogs**—dogs that are owned by humans but not under an owner’s direct supervision and management
- **commensal dogs**—wild dogs (including dingoes and free-roaming domestic dogs) living in close association with, but independently of, human beings
- **nil tenure planning process**—an approach where a range of control methods are applied across all tenures by all stakeholders at a ‘landscape’ (rather than ‘property’) level in a cooperative and coordinated manner. This approach focuses on mapping and information gathered from landholders to identify areas of wild dog habitat, movement corridors, historical and recent stock loss and current control. Replacing the boundaries on the map following the information collection process clearly identifies the responsibilities of each stakeholder with regard to wild dog management in the area
- **peri-urban**—landscape that combines urban and rural activities. These areas commonly contain a mixture of land usages including suburban pockets, rural residential lots and small-to-medium agricultural holdings.

Adopting the nationally agreed nil tenure planning process for wild dog control provides a tool to help land managers collectively identify wild dog breeding and movement corridors at the ‘landscape’ (rather than ‘property’) level. At the landscape level, it also helps land managers to implement appropriate control measures and join adjacent control programs.

1.1.2 Legislation

All wild dogs are declared Class 2 pest animals under the Land Protection (Pest and Stock Route Management) Act. Landholders, including government agencies responsible for state lands, are obliged to take reasonable steps to control declared pest animals on their land.

Under the Land Protection (Pest and Stock Route Management) Act, local governments must have pest management plans to manage pest animal impacts in their local government area.

The dingo is defined as both ‘wildlife’ and ‘native wildlife’ under the *Nature Conservation Act 1992*, and is a natural resource within protected areas such as national parks. Under the
Act, protected areas have prescribed management principles, which refer to protecting and conserving the natural resource and the natural condition.

Queensland Parks and Wildlife Service (QPWS), part of the Department of Environment and Resource Management (DERM) is responsible for administering the Nature Conservation Act and is obliged to manage dingoes within protected areas according to this rationale. Outside protected areas, a dingo is not protected wildlife. The Nature Conservation (Wildlife) Regulation 1994 (Schedule 5) specifically excludes dingoes from the common mammal (indigenous to Australia) category; therefore, dingoes are only protected inside protected areas. The keeping of dingoes as pets is not permitted in Queensland.

With respect to other state lands that are managed by QPWS, dingoes (being indigenous animal life) are protected on state forest land under the *Forestry Act 1959*. Wild dogs and dingoes are defined as ‘animals’ under the *Animal Care and Protection Act 2001*. This legislation allows for the control of feral animals as long as the control is done in a way that does not cause the animal unnecessary pain and suffering.

Under the Health (Drugs and Poisons) Regulation 1996, the toxins 1080 and strychnine are classified as S7 poisons. 1080 cannot be sold directly to the public; therefore, the provision of 1080 in Queensland is the responsibility of Biosecurity Queensland, in association with Queensland Health. Queensland Health can issue landholders with a permit for strychnine for their own land only. In order to become an authorised 1080 or strychnine operator, an applicant (either a Biosecurity Queensland employee or an employee of another state government department or local government) must undergo a Biosecurity Queensland training course and pass a Queensland Health examination.

Biosecurity Queensland has developed written guidelines for the safe and responsible use of 1080. A guide to safe and responsible use of sodium fluoroacetate in Queensland (the 1080 guide) is available free of charge from DEEDI. Landholders must adhere to these guidelines.

### 1.1.3 Distribution

Wild dogs are present in all areas of the state (Biosecurity Queensland 2009). The distribution of dingoes is more difficult to determine. In a 2001 survey of dingo skulls from seven major regions across Australia, only 74% of dogs were classified as ‘dingo’ and no population surveyed contained 100% of dingoes (Corbett, 2001). In the remote and far western areas there is a higher percentage of dingoes, whereas there is a higher percentage of hybrids in closely settled areas. A 2008 study of wild dogs in South East Queensland showed at least 85% were hybrids (Elledge et al. 2008). Ongoing DNA analysis of wild dog populations will continue to provide more information about the geographic location of dingo populations (West Australian Wild Dog DNA project).
1.1.4 Impacts

It is difficult to accurately determine the full economic impacts of wild dogs as different estimation methods cover a variety of impacts.

The production impacts, and some social impacts, of wild dogs on rural industries in Queensland have been estimated at $33 million annually (Rural Management Partners Report 2004). Gong et al. (2009) have estimated the annual economic surplus losses in Queensland on the beef, lamb and wool industries due to wild dogs at $22.28 million.

AgForce (2009) has estimated that costs attributed to wild dogs in Queensland may be as high as $67 million (based on producer estimates of production loss and processor figures of discounted dog-bitten animals).

There has been no cost–benefit analysis (CBA) of environmental impacts. The ecological role of wild dogs and dingoes is not fully understood, but observational and modelling studies (e.g. Johnson et al. 2007) indicate that dingoes may protect some smaller native species by reducing the density or changing the behaviour of smaller predators such as foxes and cats (trophic regulation).

However, there is debate over the interrelationship between these predators (Fleming et al. 2001), particularly due to the lack of experimental evidence, and further assessment of the ecological role of the wild dogs in a range of environments is needed.

Some of the environmental, production and social impacts of wild dogs are outlined in Table 1 on page 6.

Social impacts include the loss of companion animals, costs associated with exclusion fencing and risks to human health and safety. Wild dog attacks on stock and companion animals also cause significant psychological stress on livestock owners and the public, who may fear wild dog attacks.
Table 1: Environmental, production and social impacts of wild dogs and dingoes

<table>
<thead>
<tr>
<th>Environmental impacts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative:</strong></td>
<td></td>
</tr>
<tr>
<td>• Feral dogs and hybrids compete directly with dingoes for food and living spaces, particularly in refuge areas.</td>
<td></td>
</tr>
<tr>
<td>• Hybridisation between dingoes and other wild dogs is weakening the dingo gene pool.</td>
<td></td>
</tr>
<tr>
<td>• Predation on small remnant populations of native species such as bridled nailtail wallabies (Corbett 1995, Fisher 2000) and tree kangaroos (Tree Kangaroo and Mammal Group 2000) threatens their viability.</td>
<td></td>
</tr>
<tr>
<td><strong>Positive:</strong></td>
<td></td>
</tr>
<tr>
<td>• The dingo is the largest native mammalian carnivore in Australia. In addition to moderating the population growth of native species, dingoes are thought to be an important limiting factor on feral animal populations (e.g. rabbits, goats, pigs, cats and foxes), which in turn may aid the survival of native species.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Production impacts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative:</strong></td>
<td></td>
</tr>
<tr>
<td>• Producers incur direct control costs, including the cost of baits, fencing and the time required to carry out control procedures.</td>
<td></td>
</tr>
<tr>
<td>• Wild dogs cause stock losses and lower production from bitten stock.</td>
<td></td>
</tr>
<tr>
<td>• Bitten stock return lower prices than normal stock.</td>
<td></td>
</tr>
<tr>
<td>• There is a risk of disease spread to domestic animals (e.g. hydatidosis, neospora).</td>
<td></td>
</tr>
<tr>
<td>• There is a risk of exotic disease spread (e.g. if rabies was introduced).</td>
<td></td>
</tr>
<tr>
<td><strong>Positive:</strong></td>
<td></td>
</tr>
<tr>
<td>• Wild dog predation may contribute to reduce kangaroo, feral goat and pig populations. (Newsome 1994, Pople et al. 2000).</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social impacts</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Negative:</strong></td>
<td></td>
</tr>
<tr>
<td>• Wild dog impacts can result in reduced incomes to rural households and communities from stock losses and costs of control. There are also indirect control costs associated with mitigating wild dog impacts (maintenance of WDBF, rates, taxes).</td>
<td></td>
</tr>
<tr>
<td>• Reduced agricultural production from wild dog impacts can lead to a decline in employment and services in rural towns.</td>
<td></td>
</tr>
<tr>
<td>• Wild dogs can spread hydatids (a parasitic disease that can result in human health impacts) and have the potential to spread exotic diseases that affect human beings (e.g. rabies).</td>
<td></td>
</tr>
<tr>
<td>• There is a risk of wild dogs attacking children in urban areas particularly if the public contribute to habituation and socialisation of wild dogs.</td>
<td></td>
</tr>
<tr>
<td>• Wild dogs can be a nuisance to householders and tourists.</td>
<td></td>
</tr>
<tr>
<td>• Predation upon pets by wild dogs occurs in peri-urban areas.</td>
<td></td>
</tr>
<tr>
<td><strong>Positive:</strong></td>
<td></td>
</tr>
<tr>
<td>• Dingoes have a role in tourism.</td>
<td></td>
</tr>
<tr>
<td>• WDBF provides employment opportunities.</td>
<td></td>
</tr>
<tr>
<td>• Dingoes have a significant role in the spiritual and cultural practices of some Australians.</td>
<td></td>
</tr>
</tbody>
</table>
1.1.5 Responsibilities for control

As wild dogs are declared Class 2 pest animals, all Queensland land managers—private individuals, companies, local and state government agencies—have a legal responsibility under the Land Protection (Pest and Stock Route Management) Act to control wild dogs on their land.

Stakeholder responsibilities are defined fully in Section 5.

1.1.6 Control operations

The aim of control is to minimise the impacts of wild dogs across the state. Because eradication is not considered feasible for land within the WDBF, this strategy sets an objective of ‘zero tolerance’ of wild dogs. Zero tolerance provides for engagement of all parties involved to focus on preventative action and be well positioned to deal with impacts as they arise.

Ultimately, it is the responsibility of each landholder to determine and implement control practices for their individual land holding, in accordance with the provisions of the Land Protection (Pest and Stock Route Management) Act which requires all landholders to control declared pest animals. This strategy aims to provide overall guidance on how the management efforts of many can be combined in order to achieve agreed outcomes.

Effective control requires an integrated, collaborative approach. This can be achieved using a nationally agreed and adopted nil tenure approach, where a range of control methods are applied across all tenures by all stakeholders at a ‘landscape’ (rather than ‘property’) level in a cooperative and coordinated manner. The nil tenure planning process is described in Appendix 4.

Coordination of wild dog control is achieved through effective, active, inclusive landholder involvement, which is supported by local government in delivering local wild dog committee outcomes.

The nil tenure planning process has been successfully used in Queensland and interstate. The inclusion of all land managers—including local government and state government agencies such as DERM—in the early planning process is vital to the success of the nil tenure approach. Participation by government agencies in the early stages of a nil tenure approach allows them to budget and allocate appropriate funding to control programs and include wild dog control as part of their overall pest management programs.

Landscape and, ultimately, statewide control will only be achieved by linking the actions of local wild dog committees. Continuity of effort is required and local wild dog committees should establish succession planning to ensure continuation of success.

continued on page 7
Successful use of the nil tenure model

(Taken from Cuskelley 2010)

Ownership

The success of the nil tenure model depends on it being landholder driven. A successful Wild Dog Management Advisory Committee (WDMAC) must find within its community individuals who have the necessary skills (given that a community is made up of individuals who will bring their own abilities, beliefs and aspirations).

Acceptance and ownership of the problem is the first step in formulating a strategic pest control plan.

Leadership

Successful wild dog committees need enthusiastic and motivated leaders—to map the way forward, to crystallise a long term ‘vision’ for the landscape, and to bring a strong focus on practical action to achieve the vision. They need to be persistent in encouraging participation with all landholders.

They must have the skills to build the relationship with the local government, with aerial bait contractors and doggers, and other stakeholders.

Communication

This is a critical component in achieving favourable outcomes with a WDMAC.

Wild dog control encompasses many negative emotions (blame, fear, helplessness) and misinformation (common wild dog myths—relocation of Fraser Island dogs, 1080 inefficacy, all dogs come from public lands etc.). The way to overcome these myths is through communicating the facts.

Another important communication aspect is sharing information—especially as it is common for landholders to feel that they are doing it alone, that there is not a way forward. The experiences of other landholders should not be underestimated.

This mentoring can be achieved through email and now webinars, to share the successes and failures as part of an action learning cycle, and to reinforce that they are not alone. There is greater credence in the message coming directly from successful landholder groups rather than a wild dog coordinator.

Cultural change

The long-term future of wild dog management is through the evolution of cultural change, particularly in terms of accepting and implementing holistic, cooperative, landscape-scale control strategies. It should encompass an acceptance that the successful models of control are based on a project driven by landholders supported by local and state government.

It also includes the acceptance that participation in pest control is the norm for community values, and that uncontrolled pests impinge upon the whole community in a variety of ways.
The integration of wild dog control with other pest animal control ensures adequate use of resources, maximisation of return for effort and may have environmental gains in areas where wild dogs act as trophic regulators (e.g. by lessening fox impacts). Feral pig, feral deer and fox control is more effective when undertaken on a nil tenure basis. Fox control prior to wild dog control is particularly effective, as foxes are thought to consume and cache baits thus lessening bait numbers available to wild dogs.

The choice of control methods is based on an understanding of wild dog behaviour, social structure, habitats and food preferences, with effective control involving a combination of techniques. The choice is also influenced by concerns for animal welfare and non-target impacts, public safety, occupational health and safety issues, and by the restrictions (legislative and practical) on applying some techniques (e.g. use of 1080). Effective control requires an assessment of each individual situation and the circumstances surrounding each problem. As with most pest problems, no single ‘quick and easy’ method will solve all problems. Best results are achieved through a suite of complementary control methods. Consequently the retention and maintenance of existing rural exclusion fencing should be encouraged.

The main control techniques (and their advantages and disadvantages) are described in Table 2.

Table 2: Techniques for controlling wild dogs in Queensland

<table>
<thead>
<tr>
<th>Control option</th>
<th>Features</th>
</tr>
</thead>
</table>
| **Trapping**   | **Advantages:**
|                | • Effective when used as part of an integrated approach. |
|                | • Especially suited to the control of small populations or problem individuals. |
|                | • Can be used in peri-urban areas. |
|                | • Can be used successfully following baiting programs to catch shy dogs missed during baiting. |
|                | • Minimal impact on non-target species if used correctly. |
|                | **Disadvantages:**
|                | • Time-consuming and labour-intensive. |
|                | • Requires a certain level of expertise for success. |
| **Shooting**   | **Advantages:**
|                | • Suited to control of small populations or problem individuals. |
|                | • Effective when used as part of an integrated approach. |
|                | • Has no effect on non-target species. |
|                | **Disadvantages:**
|                | • Time-consuming and labour-intensive. |
### Table 2: Techniques for controlling wild dogs in Queensland (continued)

<table>
<thead>
<tr>
<th>Control option</th>
<th>Features</th>
</tr>
</thead>
</table>
| **Baiting – 1080**   | **Advantages:**  
|                      | • 1080 has a low cost.  
|                      | • 1080 is efficient.  
|                      | • 1080 is more humane than strychnine.  
|                      | • Allows a flexible approach depending on the location. Baits can be distributed by land/air or buried/tied to reduce non-target impacts.  
|                      | **Disadvantages:**  
|                      | • Baiting with 1080 in or near rural subdivisions is difficult, and sometimes not permitted when the requirements of the 1080 guide cannot be fulfilled due to population density. Baits should not be laid within 2 km of a dwelling without either the permission of the owner or approval of the Biosecurity Officer. In some areas, this means that a landholder must obtain hundreds of written permissions in order to bait.  
|                      | • Non-target animals can be affected.  
| **Baiting – strychnine** | **Advantages:**  
| Currently, strychnine permits are available from Queensland Health, subject to conditions. | • Currently fewer restrictions than with 1080.  
|                      | • May be used in conjunction with traps to ensure a quick death for captured wild dogs.  
|                      | **Disadvantages:**  
|                      | • Less humane than 1080.  
|                      | • Non-target animals can be affected.  
| **Fencing**          | **Advantages:**  
|                      | • Can effectively prevent wild dog movement back into areas where they have been controlled.  
|                      | • Exclusion fencing can be an appropriate control measure in peri-urban areas.  
|                      | **Disadvantages:**  
|                      | • Expensive to build; constant maintenance required.  
|                      | • Can have negative impacts on non-target species by reducing access to water and food.  

### Table 2: Techniques for controlling wild dogs in Queensland (continued)

<table>
<thead>
<tr>
<th>Control option</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Guardian Animals</strong></td>
<td><strong>Advantages:</strong></td>
</tr>
<tr>
<td>Use of guard dogs, llamas</td>
<td>• Provides an appropriate control measure.</td>
</tr>
<tr>
<td>and donkeys.</td>
<td>• Provides continuous protection to livestock.</td>
</tr>
<tr>
<td></td>
<td>• Guardian dogs can provide an effective barrier to wild dog movement.</td>
</tr>
<tr>
<td></td>
<td>• Can be cost-effective when used to protect commercial flocks of sheep.</td>
</tr>
<tr>
<td></td>
<td>• Guardian dogs may also repel macropods from sheep areas resulting in less grazing competition.</td>
</tr>
<tr>
<td>Best Practice Manual for</td>
<td><strong>Disadvantages:</strong></td>
</tr>
<tr>
<td>the use of Guardian Dogs</td>
<td>• Initially expensive to purchase and train guardian dogs.</td>
</tr>
<tr>
<td>provides information on</td>
<td>• Limitations in closely settled areas due to noise restrictions (barking).</td>
</tr>
<tr>
<td>effective use, van Bommel</td>
<td>• Guardian dogs must be appropriately selected and trained.</td>
</tr>
<tr>
<td>(2010)</td>
<td>If used inappropriately, guardian dogs can perpetuate wild dog problems (i.e. by mating with wild dogs). Unsuitable dogs may eat sheep.</td>
</tr>
<tr>
<td>guardian-dogs</td>
<td></td>
</tr>
<tr>
<td><strong>Aversion techniques</strong></td>
<td><strong>Advantages:</strong></td>
</tr>
<tr>
<td>such as strobe lights.</td>
<td>• Effective in some areas and situations such as gates or grids in dog fences.</td>
</tr>
<tr>
<td></td>
<td><strong>Disadvantages:</strong></td>
</tr>
<tr>
<td></td>
<td>• Wild dogs can become habituated to the aversion technique.</td>
</tr>
</tbody>
</table>
Humaneness of control techniques

The Animal Care and Protection Act provides for the control of pest animals only when the control is undertaken in a way that causes the animal as little pain as is reasonable.

The Model Code of Practice for the Humane Control of Wild Dogs (http://www.environment.gov.au/biodiversity/invasive/publications/humane-control.html) provides guidance on humane control and promotes the importance of ensuring control efforts are effective and targeted.

The model code evaluates the humaneness of different control methods.

**Exclusion fencing** is generally regarded as a humane, non-lethal alternative to lethal control methods. Although exclusion fencing acts as a barrier to wild dogs, it can have negative effects on non-target species by altering dispersion and foraging patterns, and can also be a hazard to wildlife during bushfire.

**Guardian animals** are also seen as a humane alternative or adjunct to conventional lethal wild dog control. Owners must ensure guardian animals are well cared for.

**Poisoning from 1080** is typified by severe central nervous system dysfunction, convulsions, hyperexcitability, vocalising and ultimately respiratory failure. Although the humaneness of 1080 is not yet fully understood, it is thought that during the initial onset of signs (e.g. manic running, vocalising, retching), the animal is likely to be conscious and capable of suffering distress and possibly pain. However, during the latter stages, when the animal shows signs of central nervous system dysfunction including collapse, convulsions and tetanic spasms, suffering may not occur.

**Strychnine** is considered inhumane because the affected animals remain conscious and appear to suffer pain and anxiety from the onset of clinical signs which include violent muscle spasms through to death from asphyxia and exhaustion. Human beings who have been poisoned with strychnine report intense pain (O’Callaghan et al. 1982). Although it is relatively quick-acting (death usually occurs around 1–2 hours after ingestion), strychnine is considered less humane in its action than 1080. Until a more humane alternative becomes available, strychnine can be used on the jaws of leg-hold traps to expedite the death of trapped dogs in remote areas where it is impossible to check traps daily. These traps should be checked as regularly as possible.

**Shooting** can be a humane method of destroying wild dogs when it is carried out by experienced, skilled and responsible shooters. Wounded dogs must be located and dispatched as quickly and humanely as possible. If lactating females are shot, efforts should be made to find dependent pups and kill them quickly and humanely.
Trapping causes pain and distress. Methods to increase animal welfare outcomes during trapping include:

1. **Trap choice**
   Foot (foothold rather than leghold) and reducing the overall weight provides for a more comfortable captivity for the animal, while greatly reducing possible injuries.

2. **Trap configuration**
   Most new foothold traps come from the manufacturer either already having some modification or requiring some form of modification by the purchaser. Examples of modification include:
   - padded or rubber jaw inserts
   - offset jaws
   - lamination (expanding the thickness of the trap jaw by 6 to 10 mm)
   - addition of two extra springs (four-coiling)
   - reinforcement of the base plate
   - addition of swivels, shock springs, double-staking devices and trigger systems.
   These modifications have been developed to increase effectiveness, efficiency and species specificity and to reduce stress and injury to the target species.

3. **Trap setting**
   Traps should be set in areas that are protected from environmental extremes and checked regularly. Traps set in the evening should be checked the next morning or monitoring systems should be used. Lethal traps using strychnine should only be used in remote areas where it is impossible to check the traps daily.

Control methods in development. Cyanide ejectors (undergoing registration) are considered humane as they provide rapid loss of consciousness and death with minimal suffering. Paraaminopropiophenone (PAPP), an experimental toxin, is considered more humane than 1080 and is also undergoing registration for use.
1.1.7 Preventive measures

Some domestic dogs do wander, harass, maim and prey on stock. Inadequate management of domestic dogs both past and current is increasingly seen as the source of some wild dog problems in urban, peri-urban and rural areas. In addition, these domestic dogs may increase the likelihood of hybridisation with dingoes. Hybrid animals may be larger and more aggressive than dingoes.

It is therefore important to manage domestic dogs through registration, desexing, responsible ownership and animal identification (e.g. microchipping, tattooing, collars). There is a need to have strong education programs promote the need for responsible dog ownership.

The responsible management of hunting and working dogs is also important. Hunting dogs should wear VHS trackers and lost dogs should be promptly reported and efforts made to locate them. Working dogs should be desexed and contained.

Reduction of wild dog habitat due to development can reduce living space and prey animals available and force wild dogs into increased contact with humans. Pre-emptive control of wild dogs should be an integral part of development.

1.2 Purpose of the strategy

This strategy sets a framework for coordinating the actions of all stakeholders, which will maximise the effective use of physical and economic resources used for wild dog management in Queensland.

Effective and efficient wild dog control requires a comprehensive strategy that identifies the resources required to address the problem, and facilitates accurate communication of these requirements.

1.3 Scope

This strategy has been established to address all wild dog impacts within Queensland. It is consistent with the Queensland Pest Animal Strategy and linked to other plans as shown in Table 3 on page 13.
Table 3: Context and relationship of the Queensland Wild Dog Management Strategy to other planning initiatives

<table>
<thead>
<tr>
<th>Scale</th>
<th>Natural resource management (NRM)</th>
<th>Biosecurity management</th>
<th>Pest management</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>National Strategy for Ecologically Sustainable Development (ESD)</td>
<td>National Agreement on Biosecurity (draft)</td>
<td>Australian Pest Animal Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>National Strategy for the Conservation of Australia's Biological Diversity</td>
<td>Australian Animal Welfare Strategy (AAWS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>National Principles and Guidelines for Rangeland Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional/catchment</td>
<td>Regional NRM plans</td>
<td>Regional biosecurity plans</td>
<td>Regional/catchment pest management plans</td>
<td>Regional/catchment pest species management plan</td>
</tr>
<tr>
<td></td>
<td>Catchment management plans</td>
<td></td>
<td></td>
<td>Local wild dog committee plans</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local government</td>
<td></td>
<td></td>
<td>Local government area pest management plans</td>
<td>Local government wild dog management plans</td>
</tr>
<tr>
<td>Property</td>
<td>Property management plans</td>
<td>Property biosecurity plans</td>
<td>Property pest management plans</td>
<td>Property wild dog management plans</td>
</tr>
</tbody>
</table>
1.4 Challenges for managing wild dogs

The significant challenges for managing wild dogs include:

- availability of funding and resources
- rural downturns, particularly in the sheep and wool industry
- changing rural enterprises (i.e. changes from industries that are heavily affected by wild dogs to those that are less affected)
- changing land use and social demographics, particularly in coastal areas
- difficulties of control in peri-urban environments
- variation in landholder understanding of wild dogs
- difficulty distinguishing between dingoes and hybrids
- defining a ‘pure’ dingo
- information gaps concerning the role of dingoes as a ‘top predator’
- competing stakeholder priorities and resources
- lack of commitment or cooperation for coordinated baiting programs
- management conflicts between the positive and negative impacts (e.g. dingoes can be pests, but also fill an important niche in the ecosystem)
- opposition to the use of 1080 and pesticides in general
- the availability of cost-effective and efficient alternatives to the use of 1080 for those who choose not to use 1080
- perceived reluctance of/impracticality for local governments to enforce wild dog control and feasibility of enforcement
- lack of trained operators and resource implications of providing training
- concerns over non-target impacts of baiting, particularly aerial baiting
- animal welfare obligations are acknowledged and accepted, but may sometimes limit the use of some control methods
- absentee landholders
- mobility of wild dogs (requiring coordinated action and management).

These challenges have been considered in developing the strategy and are addressed either directly or indirectly.
1.5 Principles of pest management

Development and implementation of this strategy is based on the pest management principles below. These principles are consistent with the principles of the Land Protection (Pest and Stock Route Management) Act and the Australian Pest Animal Strategy.

The management principle for dingoes on protected areas requires a balance between conservation priorities and impact management. This requires effective education, planning and research, to ensure conservation of the species while implementing strategies to minimise localised impacts.

Table 4: Pest management principles—wild dogs

<table>
<thead>
<tr>
<th>Pest management principle</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consultation and partnership</td>
<td>Consultation and partnership arrangements between landholders, local communities, industry groups, state government agencies and local governments must be established using a nil tenure approach and driven by local wild dog committees.</td>
</tr>
<tr>
<td>Commitment</td>
<td>Effective pest management requires a long-term commitment by the community, industry and government.</td>
</tr>
<tr>
<td>Public awareness</td>
<td>Public awareness and knowledge of wild dog management must be raised to increase the capacity and willingness of individuals to humanely control pests.</td>
</tr>
<tr>
<td>Prevention</td>
<td>Effective pest control is achieved by:</td>
</tr>
<tr>
<td></td>
<td>• preventing the spread of pests</td>
</tr>
<tr>
<td></td>
<td>• early detection of pests, and early intervention to control their spread and adverse impacts.</td>
</tr>
<tr>
<td>Ecological processes</td>
<td>Pest control techniques that have the least impact on, and reinforce the resilience of, ecological processes must be used when practical.</td>
</tr>
<tr>
<td>Integration</td>
<td>Pest management must be an integral part of managing natural resources and productive systems.</td>
</tr>
<tr>
<td>Planning</td>
<td>Pest management planning must be consistent at local, regional, state and national levels to ensure resources target priorities for pest management identified at each level.</td>
</tr>
<tr>
<td>Research</td>
<td>Research is necessary to improve pest management practices and methods.</td>
</tr>
<tr>
<td>Monitoring and evaluation</td>
<td>Regular monitoring and evaluation of pest control activities by stakeholders is necessary to improve pest management practices.</td>
</tr>
</tbody>
</table>
2. Strategic plan

Vision
The impact of wild dogs on Queensland's biodiversity, agricultural assets and social values is minimised.

 Desired outcomes
The strategic actions for wild dog management in Queensland will be delivered based on five desired outcomes. The first three of these are based on management zones (Figure 1); the other two are common to all zones.

Desired outcomes based on management zones
1. Zero tolerance of wild dogs inside the WDBF.
2. Control of wild dogs elsewhere in the state.
3. Reduce wild dog impacts in the coastal, peri-urban and rural residential management zones.

Statewide desired outcomes
4. The community is informed and committed to wild dog management and has the most current control methods and management techniques available.

Figure 1: Wild dog management zones in Queensland
2.1 Inside the Wild Dog Barrier Fence

Desired outcome

Zero tolerance of wild dogs inside the WDBF.

Background

The WDBF extends 2500 km from near Jandowae to Thargomindah and links to the New South Wales and South Australian fences (see Figure 2). The WDBF is also complemented by the rabbit and wild dog check fences, which connect to the eastern end of the WDBF. Changes in land use and the deterioration of the original WDBF resulted in a plan in 1981 to shorten and repair the fence. At a cost of $2.8 million, this work was completed in 1984. In 2009 the WDBF had an asset value of around $13.112 million.

The 2009–10 operational budget for the WDBF was $1.9 million, shared equally between state and local governments.

Two CBAs have been completed on the barrier fences. EconSearch completed the first CBA in 2000, and DEEDI completed the most recent CBA in 2009. Both CBAs show the fences have a net benefit to society.

A full economic assessment of the WDBF (EconSearch 2000) estimated that, at the time, benefits derived from the fence were in the order of three times its cost. The estimated net benefit over a 20-year period was $39.721 million (1997/98 value).
The 2009 analysis of the WDBF and wild dog check fences also showed a positive benefit–cost ratio of 1.84:1, with $1.84 in benefit generated for each dollar outlaid in fence administration and maintenance. With $1.9 million invested in the WDBF in 2009–10, this equates to an approximate net benefit of $3.5 million for this period alone. The WDBF also provides significant flow-on contributions to the regional economy through employment, household income and regional output.

The effects of wild dogs within the area the WDBF protects are thought to be increasing. The wild dog population has expanded due to the reluctance of some land managers to control wild dogs inside the fence. To a certain extent, this reluctance is understandable. As wild dogs do not adversely affect some land uses, some land managers regard it as economically sensible not to control wild dogs. Others are concerned about accidentally poisoning working dogs, the value of which has been increased by labour costs and decreasing returns from some pastoral enterprises. These factors have, in turn, reduced the net benefits of wild dog control for some land managers.

The benefits of the significant investment in the WDBF are maximised only when there is effective and coordinated control within the fence area. EconSearch (2000) found that, as the economic benefits of the WDBF were relatively sensitive to changes in the predation rate, significant economic benefits could be gained from reducing the predation rate inside the fence.

For local groups to take control of wild dog management, Biosecurity Queensland and industry encourage and support the nil tenure approach.
### Objective 2.1.1 – To reduce wild dog numbers and impacts to as close to zero as practicable

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.1.1</td>
<td>Establish local wild dog committees in line with published nil tenure best practice</td>
<td>Land managers, local government (LG)</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.2</td>
<td>Facilitate the establishment and continuation of local wild dog committees Linking of committees</td>
<td>Biosecurity Queensland, LG, QDOG, NRM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.3</td>
<td>Participate in coordinated nil tenure planning process</td>
<td>All land managers</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.4</td>
<td>Implement agreed control methods on all lands as part of a nil tenure coordinated and integrated program</td>
<td>Land managers, state land managers, LG, Biosecurity Queensland</td>
<td>As per local government Pest Management Plan</td>
</tr>
<tr>
<td>2.1.1.5</td>
<td>Develop local government pest management plans that are consistent with this strategy and its actions</td>
<td>LG</td>
<td>As plans are revised</td>
</tr>
<tr>
<td>2.1.1.6</td>
<td>Coordinate adjacent control programs</td>
<td>Biosecurity Queensland, LG, QDOG, NRM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.7</td>
<td>Champion the implementation of nil tenure coordinated approach to wild dog control</td>
<td>QDOG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.8</td>
<td>Champion the integrity and good governance of the WDBF</td>
<td>QDOG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.9</td>
<td>Engage absentee landholders and non-participating landholders</td>
<td>Wild dog committees</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.10</td>
<td>Promote the eradication or removal of free-living domestic dogs to prevent the formation of new wild dog populations</td>
<td>LG, Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.11</td>
<td>Develop policy and procedures to support the enforcement of wild dog control</td>
<td>Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.12</td>
<td>Enforce wild dog control in cases where landholders refuse to participate in any control activities</td>
<td>LG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.1.1.13</td>
<td>Monitor progress and report outcomes</td>
<td>QDOG</td>
<td>Annual</td>
</tr>
</tbody>
</table>
2.2 Outside the Wild Dog Barrier Fence

Desired outcome
Control wild dogs elsewhere in the state.

Background
Approximately half of Queensland’s sheep and wool enterprises are located outside the area protected by the WDBF. These enterprises are affected by wild dog predation to varying degrees, depending on what control is conducted on and around them. There are also serious wild dog impacts upon other grazing enterprises, such as calf producers.

Lack of commitment to wild dog control in the area outside the WDBF mainly arises from:
• concern over the loss of working dogs from 1080 poisoning
• perception and fact that certain enterprises are not being significantly impacted by wild dogs (e.g. cattle, cropping)
• land managers being unaware of the true impact of wild dogs on their enterprises.

The level of coordinated control necessary in rural areas outside the WDBF varies, depending on local conditions. In predominately sheep-raising areas, a local zero tolerance approach is required. However, in areas with minimal wild dog impacts, this approach may not be required. This strategy allows for varying responses for varying conditions but control must still be carried out on a ‘landscape’ (rather than ‘property’) level.
<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.1.1</td>
<td>Establish local wild dog committees in line with published nil tenure best practice</td>
<td>Land managers, LG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.2</td>
<td>Facilitate the establishment and continuation of local wild dog committees</td>
<td>Biosecurity Queensland, LG, QDOG, NRM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.3</td>
<td>Participate in coordinated nil tenure planning process</td>
<td>Land managers in areas that have wild dog impacts</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.4</td>
<td>Implement agreed control methods as part of a nil tenure and integrated coordinated program</td>
<td>Land managers, state land managers, LG, Biosecurity Queensland</td>
<td>As per local government Pest Management Plan</td>
</tr>
<tr>
<td>2.2.1.5</td>
<td>Develop local government pest management plans that are consistent with this strategy and its actions</td>
<td>LG</td>
<td>As plans are revised</td>
</tr>
<tr>
<td>2.2.1.6</td>
<td>Coordinate adjacent control programs</td>
<td>Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.7</td>
<td>Champion the implementation of nil tenure coordinated approach to wild dog control (as per terms of reference summarised in ‘Stakeholder responsibilities’)</td>
<td>QDOG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.8</td>
<td>Engage absentee landholders and non-participating landholders</td>
<td>Wild dog committees</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.9</td>
<td>Promote the eradication or removal of free living domestic dogs to prevent the formation of new wild dog populations</td>
<td>LG, Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.10</td>
<td>Develop policy and procedures to support the enforcement of wild dog control</td>
<td>Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.2.1.11</td>
<td>Enforce wild dog control in cases where landholders refuse to participate in any control activities</td>
<td>LG</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
2.3 Peri-urban zone

Desired outcome

Reduce wild dog impacts in the coastal, peri-urban and rural residential management zones.

Background

Increasing human population and levels of rural subdivision in some coastal and sub-coastal areas are leading to major wild dog management problems. People moving into subdivisions are often from a non-rural background and have a poor understanding of wild dog management. Increasing numbers of large, free-roaming dogs are affecting livestock production and dingo purity. Conflicts—including potential attacks on humans—arise when both the human and wild dog populations increase and expand. Social factors are therefore a vital part of addressing wild dog management problems.

Baiting with 1080 in or near rural subdivisions is difficult, resource-intensive and sometimes not permitted when the requirements of the ‘1080 guide’ cannot be fulfilled due to population density. Baits should not be laid within 2 km of a dwelling without either the permission of the owner or approval of a Biosecurity Officer. In some areas, this means that a landholder must obtain hundreds of written permissions in order to bait. The current alternatives to 1080 baiting (such as intensive trapping and employment of trappers by local government) may be more expensive and labour-intensive, but wild dog control is essential to minimise impacts.
Objective 2.3.1 – Wild dog impacts in the coastal, peri-urban and rural residential management zones are reduced through community action

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.3.1.1</td>
<td>Implement local community-based programs for managing wild dog impacts and reducing wild dog numbers in areas where human and wild dog populations interface using nil tenure best practice</td>
<td>Land managers, LG, Biosecurity Queensland</td>
<td>2012</td>
</tr>
<tr>
<td>2.3.1.2</td>
<td>Facilitate the establishment and continuation of local wild dog committees Linking of committees</td>
<td>Biosecurity Queensland LG, QDOG, NRM</td>
<td>2012</td>
</tr>
<tr>
<td>2.3.1.3</td>
<td>Participate in coordinated nil tenure planning process</td>
<td>All land managers</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.4</td>
<td>Implement agreed control methods on all lands as part of a nil tenure coordinated and integrated program</td>
<td>Land managers, Biosecurity Queensland, state land managers, LG</td>
<td>As per local plan</td>
</tr>
<tr>
<td>2.3.1.5</td>
<td>Develop local government pest management plans that are consistent with this strategy and its actions</td>
<td>LG</td>
<td>As plans are revised</td>
</tr>
<tr>
<td>2.3.1.6</td>
<td>Facilitate networking between all stakeholders to implement the community-based programs</td>
<td>LG pest management officers</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.7</td>
<td>Champion the implementation of nil tenure coordinated approach to wild dog control (as per terms of reference summarised in ‘Stakeholder responsibilities’)</td>
<td>QDOG members</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.8</td>
<td>Engage absentee landholders and non-participating landholders</td>
<td>Wild dog committees, LG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.9</td>
<td>Promote the eradication or removal of free living domestic dogs to prevent the formation of new wild dog populations</td>
<td>LG, Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.10</td>
<td>Develop policy and procedures to support the enforcement of wild dog control</td>
<td>Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.11</td>
<td>Enforce wild dog control in cases where landholders refuse to participate in any control activities</td>
<td>LG</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.3.1.12</td>
<td>Develop and implement targeted education tools for peri-urban landholders</td>
<td>QDOG, Biosecurity Queensland, LG, NRM</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
2.4 Community engagement and improvement

Desired outcome
The community is informed and committed to wild dog management and has the most current control methods and management techniques available.

Background
Fostering community awareness and commitment is important for managing and controlling wild dogs. Regardless of the management zone, targeted practical and current extension material and methods are an essential part of wild dog control.

Further research is needed to further understand the biology and ecology of wild dogs, the effective use of control methods, the attitudes of landholders to wild dog control and to develop new control methods and techniques. In order to direct wild dog management and foster stakeholder engagement, we require a clear understanding of the interactions between wild dogs, the environment, community and industry. Research should focus on providing management outcomes and recommendations.
Objective 2.4.1—To develop and implement a communication and extension program to ensure landholders are aware of their responsibility in rural areas

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.1.1</td>
<td>Promote the nil tenure model—guide for wild dog committees</td>
<td>QDOG, Biosecurity Queensland</td>
<td>2011</td>
</tr>
<tr>
<td>2.4.1.2</td>
<td>Promote a nil tenure planning process</td>
<td>QDOG, Biosecurity Queensland, Agforce, NRM</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
| 2.4.1.3 | Develop new and promote existing information kits, TV and radio ads, fact sheets and brochures on:  
- the need for wild dog management  
- control options/techniques  
- best practice for 1080 use, including working dog safety | QDOG, Biosecurity Queensland, AgForce | Ongoing |
| 2.4.1.4 | Liaise between parties to provide adequate promotion                             | Biosecurity Queensland, LG | Ongoing |
| 2.4.1.5 | Prepare media releases or conduct field days and other extension activities      | Local wild dog committees, Biosecurity Queensland, AgForce, QDOG, LG | Ongoing |
| 2.4.1.6 | Respond to media enquiries                                                       | Local wild dog committees, Biosecurity Queensland, AgForce, QDOG, LG | Ongoing |
| 2.4.1.7 | Promote best practice for local wild dog committees                             | QDOG                      | 2012     |
Objective 2.4.2—To develop and implement a communication and extension program to ensure that all stakeholders are aware of their responsibility and the need to control wild dogs in peri-urban areas

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.2.1</td>
<td>Promote control of domestic dogs, including identification of all domestic dogs—in peri-urban and rural areas specifically</td>
<td>LG, Agforce, RSPCA, AVAQ</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.4.2.2</td>
<td>Identify all groups that may have input to or an effect on wild dog and domestic dog management</td>
<td>LG, Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.4.2.3</td>
<td>Promote extension programs aimed at these groups to increase the awareness of domestic and wild dog concerns and the need for wild dog management—including adopting a community problem-solving approach</td>
<td>Biosecurity Queensland, DERM, LG, conservation groups, Agforce, NRM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.4.2.4</td>
<td>Promote extension programs to discourage feeding and habituating of wild dogs by raising community awareness of the legal status and dangers to human beings</td>
<td>Biosecurity Queensland, DERM, LG, conservation groups, Agforce, NRM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.4.2.5</td>
<td>Explore pathways to include wild dog awareness and responsible domestic dog management into initiatives such as landholder induction booklets</td>
<td>QDOG, Agforce, LGAQ</td>
<td>2012</td>
</tr>
</tbody>
</table>

Objective 2.4.3—To develop improved control practices

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.3.1</td>
<td>Liaise and/or collaborate with scientists carrying out relevant research interstate and overseas</td>
<td>Biosecurity Queensland</td>
<td>Current and ongoing</td>
</tr>
<tr>
<td>2.4.3.2</td>
<td>Develop additional controls to baiting, trapping, shooting and fencing appropriate to rural environments and peri-urban environments</td>
<td>Biosecurity Queensland</td>
<td>Current and ongoing</td>
</tr>
<tr>
<td>2.4.3.3</td>
<td>Investigate improvements to baiting strategies</td>
<td>Biosecurity Queensland</td>
<td>2013</td>
</tr>
<tr>
<td>2.4.3.4</td>
<td>Support field evaluation of new control practices</td>
<td>DERM, LG, NRM, AVAQ</td>
<td>When available</td>
</tr>
</tbody>
</table>
Objective 2.4.3 – To develop improved control practices (continued)

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4.3.5</td>
<td>Improve understanding of the biology and ecology of wild dogs</td>
<td>Biosecurity Queensland</td>
<td>2013</td>
</tr>
<tr>
<td>2.4.3.6</td>
<td>Improve understanding of the social factors influencing landholder wild dog management decisions</td>
<td>Biosecurity Queensland</td>
<td>2013</td>
</tr>
<tr>
<td>2.4.3.7</td>
<td>Investigate wild dog and dingo ecology in peri-urban environments to better target prevention and control methods</td>
<td>Biosecurity Queensland</td>
<td>2014</td>
</tr>
</tbody>
</table>

2.5 Conservation of dingoes

Desired outcome

Conservation of dingo populations in Queensland.

Background

To protect the biodiversity of Queensland’s natural ecosystems, dingo populations need to be maintained—assuming that dingoes are considered part of these systems. The biggest threat to dingo conservation is hybridisation with domestic dogs and hybrids.

DERM takes a leadership role in maintaining Queensland’s biodiversity. Other stakeholders have a strategic responsibility for participating in wild dog control so that dingo populations in protected areas are protected from hybridisation.

Throughout Queensland, dingo populations vary markedly according to their level of hybridisation, but the natural variations in the dingo’s appearance makes visual identification of a hybrid impossible. A technique for detecting hybridisation through DNA fingerprinting has been developed and can provide a tool for managing dingoes based on sampling from wild populations.

Objective 2.5.1—To maintain an understanding of currently available science on dingo genetic identification techniques and population ecology

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5.1.1</td>
<td>Liaise with research organisations investigating the identification of ‘pure’ dingoes and their ecology</td>
<td>DERM, Biosecurity Queensland</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5.1.2</td>
<td>Apply any new knowledge on hybridisation to on-ground management of ‘pure’ dingoes in Queensland protected areas</td>
<td>DERM</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
Objective 2.5.2—To manage populations of dingoes of conservation significance

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5.2.1</td>
<td>Incorporate dingo conservation programs in management plans for national parks and other lands managed by DERM</td>
<td>DERM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5.2.2</td>
<td>Identify and control other wild dogs to prevent hybridisation of pure dingo populations</td>
<td>DERM, Biosecurity, Queensland</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

Objective 2.5.3—To balance the conservation of the dingo with other management objectives, including the protection of rural enterprises and public safety

<table>
<thead>
<tr>
<th>No.</th>
<th>Strategic action</th>
<th>By whom?</th>
<th>By when?</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5.3.1</td>
<td>Support local government initiatives to control domestic dogs beyond town boundaries</td>
<td>All stakeholders</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5.3.2</td>
<td>Implement statewide control of wild dogs in protected areas and other lands managed by QPWS in conjunction with neighbouring landholders and in accordance with QPWS operational policies and procedures</td>
<td>DERM</td>
<td>Ongoing</td>
</tr>
<tr>
<td>2.5.3.3</td>
<td>In consultation with the community, develop site-specific management programs for areas where dingo conservation conflicts with agricultural production and human health and safety</td>
<td>DERM</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>
3. Evaluation

Evaluation of the strategy will be achieved by:

- QDOG—annually
- local government (pest management plans)—every four years.

Key performance indicators to be reviewed include:

- **general**
  - effective network of wild dog committees cover the state

- **individual rural enterprises**
  - reduced level of livestock losses, damage and encroachment by wild dogs
  - more effective, targeted baiting using nil tenure approach
  - increased number of landholders participating in coordinated control programs
  - increased enterprise selection for landholders

- **rural industry organisations**
  - reduced number of reports of wild dog impacts from graziers
  - reduced economic impact on livestock industries

- **conservationists**
  - reduced negative media interest
  - increased acceptance of the management of dingoes in protected areas
  - increased acceptance of the management of dingoes elsewhere
  - size, number and purity of dingo populations identified and maintained sustainably
  - public acceptance of wild dog control programs

- **community/interest groups**
  - reduced number of pets and domestic animals lost to wild dog attacks
  - safety—reduced number of attacks on humans
  - increased awareness of livestock industry viability
  - increased acceptance of control techniques and commensurate welfare issues
  - increased awareness of the properties and use of 1080
  - increased number of groups actively involved in local wild dog issues.
4. Opportunities and constraints

4.1 Implementation of the strategy

This will provide a basis for:

- improved communication mechanisms
- improved general awareness
- wider community support for wild dog control
- coordination of management efforts
- efficient use of resources
- improved participation in and acceptance of control
- improved data collection and research.

4.2 Possible constraints

The following may limit the successful implementation of the strategy:

- rural downturn—particularly in the sheep and wool industry
- competing stakeholder priorities and varying levels of commitment—particularly to baiting inside the WDBF, on cattle properties and in peri-urban areas
- difficulty enforcing wild dog control
- poorly functioning wild dog committees
- expecting the state government to increase its role as ‘partner’ in wild dog control
- resource limitations at all government levels
- potential conflict regarding the conservation status of dingoes (i.e. ‘pest’ versus ‘native’)
- concerns over non-target impacts of baiting—particularly aerial baiting
- animal welfare and rights issues
- inability to establish project coordinator positions
- increasing density of small blocks in peri-urban areas limit control options. New control options are needed for these areas.
5. Stakeholder responsibilities

All stakeholders will need to help implement the strategy and develop site-specific management plans. The general responsibilities of each of the major stakeholders in wild dog management are listed below. The communication pathways between stakeholders are shown in Appendix 3.

Queensland Dog Offensive Group

- Provide leadership and advocacy for the effective management of wild dogs in Queensland
- Oversee and monitor the implementation of the strategy
- Review the key performance indicators annually and report progress to the BQMAC
- Provide advice to the minister through BQMAC on policy and strategic issues associated with wild dog management
- Provide advice to Biosecurity Queensland and other stakeholders on priorities for science, education, planning, risk assessment, operations and compliance
- Build and maintain relationships between state government, industry and local governments to support a collaborative approach to wild dog management
- Foster stakeholder commitment to wild dog management and the implementation of the strategy
- Identify and promote opportunities for improved investment in wild dog management and cooperation between key stakeholders
- Promote the development of communication networks between wild dog management groups, managers and researchers across Queensland

Local wild dog committees

- Develop wild dog control plans on a ‘landscape’ (rather than ‘property’) basis
- Coordinate control activities within their committee area
- Coordinate control activities with adjacent committee areas
- Foster landholder awareness and commitment to wild dog control
- Engage non-participating and absentee landholders
- Monitor effectiveness of control programs

All land managers (private and public, including australian and state government lands)

- Participate in organised groups for coordinated control
- Conduct population and damage assessments for their lands
- Conduct control programs using the most appropriate and effective methods available for the particular situation
- Notify neighbours and erect warning signs around bait areas
- Monitor effectiveness of control programs and report to local wild dog committees
Industry groups

- Promote the need for, and help form or operate landholder groups for coordinated control
- Promote availability, and conditions of use, of control agents
- Raise awareness of control issues with the media and general public

Local government

- Incorporate nil tenure wild dog planning in local government area pest management plans.
- Encourage land managers to control wild dogs and encourage the formation of local wild dog management committees
- Investigate the enforcement of wild dog control in cases where landholders refuse to participate in any control activities
- Regulate the control of domestic dogs
- Review the key performance indicators annually

Authorised officers (local government)

- Ensure wild dog control is undertaken
- Help form landholder groups, organise coordinated baiting campaigns and provide 1080 impregnation of baits in association with Biosecurity Queensland officers
- Provide advice to landowners on various wild dog control techniques

Australian Veterinary Association (Queensland Branch)

- Promote responsible management of domestic dogs

RSPCA

- Promote responsible management of domestic dogs

Community and conservation groups

- Review and participate in education, information, conservation and planning processes

Biosecurity Queensland

- Plan and develop policies
- Provide regulation, training and quality control for 1080 use in Queensland
- Ensure appropriate links and communication between internal and external stakeholders within their area of responsibility
- Undertake wild dog extension activities, including providing advice on control techniques
- Encourage land managers to control wild dogs, and encourage the formation of local wild dog management committees
• Coordinate and monitor baiting campaigns
• Undertake population and damage assessments and collect impact data
• Investigate complaints
• Liaise with departments managing Australian and state government lands
• Develop and implement wild dog extension activities, including media and internet liaison
• Prepare advisory publications on wild dog management for grazing enterprises and the general community
• Monitor effectiveness of control agent(s)
• Investigate additional control techniques
• Assess wild dog impacts
• Perform quality control of 1080 solutions
• Investigate complaints about 1080 quality
• Analyse stomach samples and/or baits for 1080 and other toxins

Wild dog offensive

Project coordinator
• Investigate resourcing and collaboration opportunities, both operational and science based
• Identify opportunities and threats to the implementation of the wild dog offensive
• Link Biosecurity Queensland's policy, science and operational wild dog outcomes
• Liaise with the national wild dog coordinator to make sure Queensland’s decisions reflect national agendas, including delivery of the nil tenure planning and a national perspective to the state offensive (i.e. state boundary issues)
• Develop community engagement plans for continued wild dog control
• Prepare milestone based reporting
• Investigate benchmarks for measuring the wild dog offensive
• Provide support to QDOG

Wild dog coordinator (inside the WDBF)
• Work with groups and landholders to reduce the impact of wild dogs on primary industries and the community
• Lead community engagement practices that raise awareness of the impact of wild dogs and the need for wild dog control
• Lead community engagement practices that increase primary producers’, landholders’ and the community’s participation in wild dog control
Department of Environment and Resource Management

- Conduct control programs for wild dogs other than ‘pure’ dingoes on protected areas and other lands managed by DERM if impacting local communities
- In collaboration with neighbouring landholders, participate in coordinated planning and control programs for wild dogs at the ‘landscape’ (rather than ‘property’) level
- Cooperate with local governments, community groups and landholders to manage the positive and negative impacts of wild dogs

Queensland Health

- Issue approvals to Biosecurity Queensland-trained state and local government operators for use of 1080 and strychnine

Zoos and wildlife parks

- Inform the public of the status of the dingo and its role in ecological processes as well as its pest status
- Keep only purebred dingoes for breeding
- Maintain records on genetic purity of animals held
- Comply with permit conditions (animal welfare and security)
6. Bibliography

AgForce 2009, *Major economic costs associated with wild dogs in the Queensland grazing industry*, AgForce, Queensland.


Angel, ED 2006, ‘Dingo diet and prey availability on Fraser Island’, USC Coast Research Database citation.


Merrell, PW, ‘The impact of predation on livestock production’, unpublished paper, Department of Lands, Brisbane.


Wild Dog DNA Project - a partnership between the University of Western Australia, the Department of Agriculture and Food, the Rangelands NRM Coordinating Group, The Department of Environment and Conservation, BHP Billiton and the Invasive Animals Cooperative Research Centre. <http://www.wilddogdna.animals.uwa.edu.au/about_the_project/western_australian_wild_dog_dna_project>, viewed 20 December 2010.
Appendix 1

Summary of the biology and ecology of the dingo (Fleming et al. 2001)

Scientific name: Canis familiaris dingo
Common name: Dingo

Size:
- Length – average 123 cm (males longer than females)
- Weight – female approximately 12 kg; males approximately 15 kg

Description:
- Coat colour is predominantly ginger (red to sandy) or black and tan, but can vary from pure white to black. Most dingoes have pure white feet, chest patch and tail tip. Broken colours (e.g. brindling and patchiness), suggest the presence of domestic genes (hybrids and domestic dogs).
- Dingoes have a more heavily boned skull and larger teeth (especially the canine) than domestic dogs of similar size.
- It is very difficult to distinguish some hybrids from pure dingoes using external features. Advances in DNA technology are being made (e.g. identification of DNA ‘connectors’ in faeces).

Reproductive characteristics:
- Breeding season – April to June
- Oestrus cycle – one per year
- Mean litter size – four to six
- Gestation – nine weeks
- Weaned at – four months
- Age at first breeding – two years (particularly in drier areas)

Other wild dogs have two oestrus cycles per year, but it is unlikely that they are able to successfully breed twice in the one year.

Diet:
- Dingoes are mostly opportunistic predators. Medium-sized animals—kangaroos, wallabies, rabbits and possums—form the major part of their diet, but they also consume a variety of other available prey.
- Dietary studies have indicated that dingo predation and consumption of domestic stock is low; however, in some areas dingoes kill stock (particularly sheep) surplus to their requirements.

Behaviour:
- Social, living in a small group (3–12 members) of related individuals, usually within a home range that is strongly defended. Most young disperse on reaching adulthood.
- Groups rarely move as a pack unless hunting larger animals. Members maintain (patrol and mark) their own home range, but may meet and separate during the day. They are more gregarious during the breeding season.
Appendix 2

Statutory framework for wild dog control at time of publication

1. State legislation

*Animals Care and Protection Act 2001*

42 Feral or pest animals

(1) This section applies for an offence if the act that constitutes the offence is—

   (a) an act done by a person to control a feral animal or pest animal, including, for example, by killing it; and

   (b) the act does not involve the use of a prohibited trap or spur.

(2) It is an offence exemption for the offence—

   (a) if the act is done in a way that causes the animal as little pain as is reasonable; and

   (b) the control complies with any conditions prescribed under a regulation.

(3) In this section—*feral animal means an animal living in a wild state that is a member of a class of animals that usually live in a domestic state.*

Examples of classes of animals that usually live in a domestic state—buffalo, cats, dogs, donkeys, goats, horses and pigs

*pest animal means any of the following—*

   (a) a non-indigenous animal generally regarded as being a pest; Examples—black rats, brown rats and cane toads

   (b) noxious fisheries resources under the *Fisheries Act 1994*;

   (c) an animal declared under a regulation made under this or another Act to be a pest;

   (d) an animal required to be controlled under an Act;

   (e) an animal the subject of a measure or program to control disease under the *Fisheries Act 1994*, *Stock Act 1915*, *Exotic Diseases in Animals Act 1981* or another Act.

*Forestry Act 1959*

Definition

s. 5 —‘Forest product’: ...(b) all forms of indigenous animal life...

s. 33—Cardinal principle of management of State forests

s. 39—A person shall not interfere with any forest products on State forest, timber reserve or forest entitlement area except under the authority of a lease or permit.

*Health (Drugs and Poisons) Regulation 1996*

s. 272—Fluoroacetic acid in baits

272 Fluoroacetic acid in baits

(1) An authorised person under the *Land Protection (Pest and Stock Route Management) Act*
2002 may give prepared baits containing not more than 0.03% fluoroacetic acid to another person (the user) to control declared pests under that Act.

(2) The user may possess and use the baits only under the written conditions given to the user by the authorised person.

(3) An adult employee of the user, or other adult authorised by the user as agent of the user, may also possess and use the baits under the written conditions.

(4) The user must—
   
   (a) comply with the written conditions; and
   
   (b) ensure the user’s employees or authorised agents comply with the written conditions.

Maximum penalty for subsection (4)—80 penalty units.

Nature Conservation Act 1992

Definitions

s. 7—‘Indigenous to Australia’: ... wildlife that was not originally introduced to Australia by human intervention (other than wildlife introduced before the year 1600...)

s. 7—‘Natural resources’: in relation to a protected area, or an area identified under a conservation plan as, or including, a critical habitat or an area of major interest—means the natural and physical features of the area, including wildlife, soil, water, minerals and air.

s. 7—‘Protected wildlife’: native wildlife that is prescribed under this Act as: presumed extinct wildlife; endangered wildlife; vulnerable wildlife; rare wildlife; or common wildlife.

s. 7—‘Take’: means to hunt, shoot, wound, kill, poison, snare, harm, etc. or to attempt to do so.

s. 7—‘Wildlife’: means any taxon or species of an animal, plant, protista, procaryote or virus.

s. 14—‘Protected area’: National Parks (Scientific); National Parks; National Parks (Aboriginal land); National Parks (Torres Strait Islander land); Conservation Parks; Resources Reserves; Nature Refuges; Coordinated Conservation Areas; Wilderness Areas; World Heritage Management Areas; and International Agreement Areas.

ss. 16–26—Management principles of protected areas.

ss. 22(c) and 23(c)—Interests of landholders (Refuge areas and Coordinated Conservation areas) to be taken into account.

s. 62—A person can not take use or keep or interfere with a natural resource of a protected area other than under a licence, permit, etc.

s. 137—Licences, etc. to be consistent with management principles, and management intent or plan.

Nature Conservation Regulation 1994

s. 81—A person must not bury or leave a noxious, etc., substance or use a pesticide (without the chief executive’s written approval) in a protected area.

s. 235—Schedule 7 Poisons (e.g. 1080) are not to be used to take protected wildlife.
Nature Conservation (Wildlife) Regulation 1994

Schedule 5

s. 4(1)—‘Common mammal’: A common mammal is a mammal indigenous to Australia other than—a presumed extinct, endangered, vulnerable or rare mammal, or a dingo (i.e. dingoes are not protected under the Nature Conservation Act 1992 unless they are in a protected area, e.g. in refuge areas).

Land Protection (Pest and Stock Route Management) Act 2002

s. 6(2)— Where a person does something that is required or permitted under this Act, but would have committed an offence under the Nature Conservation Act 1992 and the Forestry Act 1959, then they have not committed that offence.

s. 9—Outlines the principles of pest management.

ss. 10–16—Provides a legislative head of power for the development of strategies and guidelines for the management of pests in Queensland.

ss. 17–24—Pest management on state lands.

ss. 25–35—Local government area pest management planning.

ss. 77–82—Private landholders to control pests on their lands. Penalties for non-compliance, notices may be issued, costs recovered.

s. 183—Local governments are to ensure declared pests are managed within their areas in accordance with the Act and the principles of pest management.

ss. 39–42, 44—Offences for the introduction, feeding, keeping, release and supply (sale) of declared pests without permit.

s. 95—Destruction of particular dogs—allows an authorised person or the owner of non urban land to destroy a dog that is not under control or attacking stock on the land.

2. Federal legislation

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

This Act applies when the activity is likely to have a significant impact on a matter of national environmental significance. It aims to promote the conservation of biodiversity and it includes provisions to deal with invasive species.

Land listed on the Commonwealth Register of the National Estate is managed under provisions in the Australian Heritage Commission Act 1975 (AHC Act). Listing under Criteria A and B of the AHC Act requires that any activities that may impact on the biodiversity of the area have to be formally considered under section 30 of the Act; however, baiting of nuisance and feral animals is not precluded. Baiting can be viewed as a routine maintenance operation aimed at enhancing biodiversity by reducing non-native predator pressure on indigenous wildlife populations.

Civil Aviation Regulations 1988

Govern the aerial application of 1080 baits.
Appendix 3

Communication pathways

Figure A3: Communication protocol for project coordinating officers
Appendix 4

The nil tenure planning process to wild dog management

This advice is supported and promoted by the Invasive Animal Cooperative Research Centre and the National Wild Dog Management Group.

The national approach to wild dog management utilises the nil tenure planning process to develop management plans that reflect adaptive management principles and apply a various range of control methodologies applicable to the representative area. The nil tenure process was developed in New South Wales to avoid the ‘ownership issue’ surrounding wild dogs. In areas where private landholders border crown or state land, discussion at wild dog management meetings rarely got past the issues of who owned the dogs and where they came from.

This process uses GIS mapping to remove the property boundaries and looks at the issue from a ‘landscape’ perspective—therefore avoiding the issue of who owns the land and the dogs causing the problem. For more information on the nil tenure planning process, the following link will take you to the Brindabella-Wee Jasper Cooperative Wild Dog/Fox Management Plan, on which the nil tenure process was modelled: http://www.environment.nsw.gov.au/pestsweeds/WildDogAndFoxControlProgram20022005.htm.

Being the first plan of its kind in New South Wales, the Brindabella plan is extremely comprehensive and contains far more detail than will be required by most of the plans being developed in Queensland, where tenure issues are less problematic. In the south-east, however, the nil tenure approach is much better suited as a greater array of land owners, both state and private, occurs throughout the landscape and this process will help avoid the issues of who owns the problematic dogs. It will also identify where control is required and who is responsible.

The following are key components of the nil tenure planning approach:

- Requirement to remove all boundaries during the information gathering process, therefore avoiding any bias against individual stakeholders and fostering more accurate information gathering.
- Use of GIS mapping to identify areas of wild dog habitat and movement corridors, historical and recent stock loss and current control.
- Collection of information from stakeholders in the local area and provision to stakeholders of a sense of ownership of the plans. This has more relevance to on-ground control operations for the particular area.
- Replacement of boundaries on the map following the information collection process, clearly identifying the responsibilities of each stakeholder with regard to wild dog management in the area.

Development of local area management plans

- In Queensland, these plans are developed at the local government level, which has primary responsibility for wild dog management under state legislation.
- The local government area is divided into smaller local area planning groups in order to develop plans with a key stakeholder in each area. The way in which these local planning groups are developed can vary. Plans can either be based on the landscape within the area (such as catchments or ecosystem types) or some other form of administrative boundary (such as community groups, parish boundaries or wild dog control syndicates).
• The strength and drive for these plans comes from the community groups, and to some extent relies on peer group pressure to generate cooperation and participation in wild dog management programs. This peer group pressure is then fostered by agency and industry representatives.

• Using satellite maps for each of the areas, information is collected on wild dogs for that group. Landholders from each of these areas or groups are then asked to provide information on wild dog activity in their area. The type of information collected from landholders regarding wild dogs includes information on wild dog activity (such as their movements, breeding sites and areas of stock loss—both current and historic).

• In addition to information on wild dog activity, landholders are also asked to provide information on the type and distribution of control undertaken on their own properties. This may include dog-proof fencing, trapping, baiting (both ground and aerial) or the use of guard animals.

• Once this information is collated and mapped, the group then begins looking at avenues for management—including different types of control and how to foster greater participation from the rest of the community.

• Developing these maps is integral to the planning process. It is also a vital tool that the community can use to demonstrate each landholder’s role in wild dog management and how their inaction can be impacting on neighbours and other producers in their region.

• A local area management plan is then developed through consultation with landholders. This results in an annual operational plan that outlines how and when wild dog control programs will be implemented in the local government area.

Benefits of the planning process

• Landholders feel empowered by this process and have ownership, which fosters greater participation and confidence in the local government control programs.

• Increased communication between stakeholders, agency staff and industry through these planning meetings provides a platform for cooperation and better participation by landholders in control programs.

• The establishment of community groups and local government wild dog management committees (as a result of the local area planning process) has generated better communication between council staff and landholders. This results in better coordination and preparation for wild dog control programs within the local government area.

• Where 1080 is used, baiting campaigns are generally more successful as a result of better placement of baits following the planning process. Additional refinement of the baiting process (i.e. seasonal timing, bait type or the time of bait application) also increases the chance of reducing dog numbers.

• The planning process may identify key movement corridors. Dogs that have wide-reaching impact can be controlled before they cause any damage further afield.

• Each local area plan is developed in recognition of adjoining plans in order to shut down movement corridors and breeding sites.

• Monitoring programs put in place to measure wild dog activity allow for proactive control and provide feedback on the effectiveness of control, while providing information on biodiversity.
• Non-target bait uptake by foxes has great benefits to biodiversity as well as making wild dog traps more effective for targeting problem dogs.

Further reading
