



# Victorian Pest Management

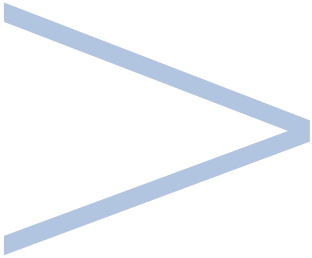
A Framework for Action

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## Foreword

Minimising the impacts of pests is a key aspect of sustainable natural resource management. The devastating effects that pests have on biodiversity and the agricultural resource base are well known. Pests reduce farm, fishery and forestry productivity, displace native species and contribute significantly to land and water degradation. Internationally, exotic invasive species are now recognised as the second greatest threat to natural ecosystems.

The Victorian Government has recognised that the permanent care of our natural environment is one of its most important duties. In particular, it has recognised that introduced weeds and pest animals are a major cause of the degradation to Victoria's rivers and catchments.

The Bracks Government is committed to working in partnership with industry and the community for the protection of Victoria's natural resources from the impact of pests. This is the first Victorian Pest Management – A Framework for Action (VPMF) ever developed in Victoria to provide a comprehensive planning framework for pest management in Victoria. It provides the overarching policy framework to give strategic direction to current and future species strategies and regional Action Plans. Victorian Pest Management – A Framework for Action also outlines the important strategic actions which need to be taken to adequately deal with pests at a State and regional level over the next 5 years, and identifies the key responsibilities and partnerships required. It also includes a number of individual strategies for specific pest management issues.

Victorian Pest Management – A Framework for Action provides a basis for all pest managers to work together to develop and implement agreed long-term, effective, safe, humane and integrated management processes that protect and improve Victoria's biodiversity, natural values and productive capacity of land. It is a genuine attempt at providing a strong basis for community and Government agreement and involvement in vertebrate pest management on both public and private land in Victoria.

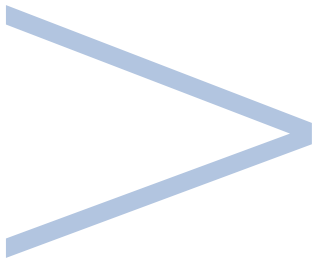


**Sherryl Garbutt MP**  
**Minister for Environment and Conservation**

# Victorian Pest Management

A Framework for Action





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# 1. Introduction

## 1.1 Threats posed by pests

The Australian landscape has been changing for millions of years in response to climatic, geological and biological factors. Since European settlement the rate of change has been extensive and rapid. Of the 90 species of non-marine mammals known to have inhabited Victoria upon European arrival, 19 are now extinct in the State. Five of these are now totally extinct. Many other species have much-diminished populations and distributions. More than 900 species of Victorian plants are either rare or threatened. Invasion by introduced terrestrial and aquatic animal and weed species has been a significant component of this change.

Pests reduce farm, fishery and forestry productivity, displace native species and contribute significantly to land and water degradation. More than a thousand species of weeds in Victoria have been estimated to cause hundreds of millions of dollars worth of damage annually to Victorian agriculture and aquaculture. Pest animals also have a significant impact on the value and quality of the State's land and water resources. The impact that pests have on natural ecosystems is very serious; weeds such as blackberry and bridal creeper and pest animals such as foxes, rabbits, European carp and the Northern Pacific sea-star have the potential to destroy the biodiversity values of highly prized ecosystems. Internationally, exotic invasive species are now recognised as the second greatest threat to natural ecosystems. Non-indigenous plant species now comprise 28% of Victoria's floral species. As a result of these direct impacts, there is also considerable social impact through hindrance of the long-term sustainability of rural communities.

Despite considerable government and private sector investment, invasion of terrestrial and aquatic (freshwater and marine) vertebrate and invertebrate pests still represent a major threat to both the productive capacity of land and water and the integrity of our natural ecosystems.

## 1.2 Pest management is an integral part of good land and water management

The Victorian Government has recognised that the permanent care of our natural environment is one of its most important duties. The Government, through its *Growing Victoria Together* vision statement, has nominated ‘Promoting sustainable development’ and ‘Protecting the environment for future generations’ as two of the priority issues for Victoria over the next ten years. In particular, it has recognised the degradation to Victoria’s rivers and catchments caused by introduced weeds and pest animals.

The Victorian Pest Management – A Framework for Action (VPMF) provides a comprehensive planning framework for pest management in Victoria. It provides the overarching policy framework to give strategic direction to current and future species strategies and regional Action Plans. Pest management is an integral part of good land and water use. Pest management fits within the vision for the Department of Natural Resources and Environment (NRE) set out in the 2001-2004 Corporate Plan as *‘Prosperity with Care’*. This states the Department’s Purpose as:

***“To ensure Victoria’s natural and cultural assets are managed to secure social, environmental and economic benefits for both current and future generations”.***

Considerable government and private sector investment has been made in attempting to stop the impact of exotic pest species. The success of much of this work has been limited, as pest management programs have been seen as an area for specific and focussed attention that have often been implemented seemingly independently of other elements of land and water management.

To be effective, pest management must be part of the holistic management of land and water resources, i.e. it needs to be an integral component of programs designed to protect and enhance biodiversity, native vegetation, and primary production, and for programs that seek to remedy salinity, soil erosion and other forms of land and water degradation. Good ‘landscape’ management requires the Government, land and water managers and the community to work together to develop and implement long-term, effective, safe and integrated management processes that protect and improve both the productive capacity of land and the integrity of natural ecosystems.

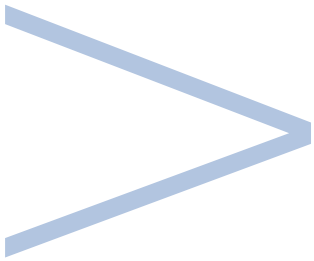
## 1.3 The vision for pest management in Victoria

The following vision will assist all Victorians to achieve effective outcomes for pest management in Victoria.

***“Pests no longer threaten the State’s natural assets, its social values and productive capacity of its land and waters.”***

This vision will be achieved through working partnerships between NRE and key stakeholders to ensure cost-effective and best practice pest management in Victoria.

State and local government, Catchment Management Authorities, industry, individual landholders and the wider community all share a responsibility for the implementation of strategic and integrated pest management programs to ensure the long-term protection of our natural, social and economic values.



## 2. Intent of the VPMF

### 2.1 Aims

The VPMF presents the consistent approach to be taken by Government across all pest management programs on public and private land and water through:

- The application of basic principles across all pest areas to develop priorities and programs;
- A focus on impacts and outcomes in determining pest programs;
- Developing and using procedures that are safe, humane, environmentally sound and economically feasible;
- Appropriate institutional arrangements and effective working partnerships for progressive pest management;
- Encouraging land and water managers, as well as promoting community vigilance, in reporting new pest problems and ensuring rapid response to new pest infestations;
- Ensuring that the Victorian community is fully aware of the social, economic and environmental impacts and threats of pests and has the capability to act to minimise their damage;
- Containing, and where possible reducing, the level and impact of existing pests and maintaining gains already made in pest management;
- Continuous improvement and application of best management practice through evaluation, review and targeted research; and
- Promoting and implementing innovative market-based incentives for activities that protect farm production and biodiversity values from the impact of pests.

### 2.2 Scope

The VPMF provides a mechanism for considering terrestrial and aquatic (freshwater and marine), weed and vertebrate and invertebrate pest management in Victoria. To achieve this, the VPMF has two components.

- 1 The overarching policy and planning framework that provides the principles and directions for the management of existing and potential pests in Victoria, regardless of type or land and water tenure.
- 2 Specific species or issue based pest strategies developed according to the policy and planning framework.

There are at least 250 pest animal species and 1,000 weeds species established in Victoria. Given this number it is essential to prioritise strategies that would be included under the policy and planning framework. The initial strategies prepared for this document concentrate on the pests declared under the *Catchment and Land Protection (CaLP) Act 1994*, as well as their management on public land. These are:

- Weeds;
- Rabbits;
- Wild dogs;
- Wild goats and pigs;
- Foxes; and
- Public Land Pest Management (including the Good Neighbour Program).

It would be expected that future strategies under the VPMF would deal with other priority terrestrial and aquatic vertebrate and invertebrate pests. The VPMF needs to be viewed as a “living” document with additional strategies being included as required and existing ones modified to meet new challenges. Regional weed, rabbit and wild dog Action Plans, which have been prepared by Catchment Management Authorities (CMAs)<sup>1</sup>, also fit within the VPMF.

A number of government-sponsored programs have sought to enhance the efforts of land managers, local government and State Government, and to build partnerships between stakeholders. The VPMF recognises this past action, and also incorporates recent work and new approaches that have been developed since the preparation of earlier documents.


The VPMF will:

- 1 Ensure that available resources are utilised to achieve maximum economic, social and environmental benefits;
- 2 Guide future reviews of Regional Catchment Strategies and Regional and Local Action Plans relevant to pest management;
- 3 Provide directions that can be supported by both private and public land and water managers; and
- 4 Provide a basis for priority setting and public resource allocation, which is efficient, effective and fair, and will achieve the desired results.

## 2.3 Desired outcomes of the VPMF

The success of the VPMF will be determined by:

- 1 Achieving a standard of land and water management which meets State biodiversity objectives for public and private land and waterways, and which provides enhanced productivity and profitability on private land and fisheries, (recreational, commercial and aquaculture);
- 2 Preventing new and emerging pests from having significant impacts on natural and productive resources;
- 3 Decreasing the impact of established pests on natural and productive resources; and
- 4 Increasing community capacity to successfully respond to new and existing pest problems.

 <sup>1</sup>CMAs is used here to include the nine Catchment Management Authorities and the Port Phillip and Westernport Catchment and Land Protection Board

## 2.4 Supporting legislation, strategies and agreements

There is a range of legislation relating to pest management in Victoria. One of the principle Acts is the *Catchment and Land Protection Act (CaLP) 1994*, which establishes a basis for the control of declared pest plants and animals on land in Victoria (defined in this context to include soil, water, vegetation and fauna on land). Other State legislation that requires agencies, planners and managers to act in ways to promote effective pest management either directly or indirectly includes the *National Parks Act 1975*, *Forests Act 1958*, *Fisheries Act 1995*, *Conservation Forests and Lands Act 1987*, *Crown Land (Reserves) Act 1978*, *Land Act 1958*, *Water Act 1989*, and the *Coastal Management Act 1995*.

The provisions of the *Wildlife Act 1975* determine management options for native wildlife species that interfere with agricultural production. The *Flora and Fauna Guarantee Act 1988* remains the landmark biodiversity legislation in Australia and is designed to address biodiversity issues on both public and private land. The *Local Government Act 1989* and the *Planning and Environment Act 1987* provide opportunities for local government involvement in pest management.

The *Biological Control Act 1986*, which mirrors the *Commonwealth Biological Control Act*, provides for the biological control of pests in Victoria through the nomination of target species to be treated and the agents to be introduced. The *Agricultural and Veterinary Chemicals Act 1992* regulates the manufacture, sale, use and application of agricultural chemical products, including those used in pest management activities. The *Prevention of Cruelty to Animals Act 1986* imposes control over the treatment of animals, while the *Domestic (Feral and Nuisance) Animals Act 1994* provides a scheme to protect the community and the environment from the effect of feral and nuisance dogs and cats.

In addition to State legislation, Commonwealth legislation may also impact upon pest management in Victoria, including the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* which deal with actions that have, or are likely to have, a significant impact on a matter of national environmental significance. Aboriginal cultural heritage sites, both recorded and as yet not recorded, are protected by the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and the *Archaeological and Aboriginal Relics Preservation Act 1972*. The *Quarantine Act 1908* and the *Biological Control Act 1986* regulates the importation and use of biological control agents.

The VPMF also recognises the importance of other key national and State agreements and strategies, and the environmental management systems used by Victorian agencies. These include:

### National

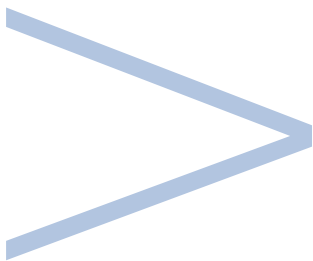
- Intergovernmental Agreement on the Environment (IGAE).
- National Weeds Strategy.
- National Strategy for Ecologically Sustainable Development.
- National Strategy for the Conservation of Australia's Biological Diversity.
- National Strategy for the Conservation of Threatened Species and Communities in Danger of Extinction.
- Strategies developed for Weeds of National Significance under the National Weeds Strategy.
- Managing Vertebrate Pests: Principles and Strategies.
- Managing Vertebrate Pests: series – (rabbits, feral pigs, feral goats, foxes, rodents and wild dogs).
- National Forest Policy Statement.

## State

- The Victorian Government's Growing Victoria Together vision statement.
- Victorian Biodiversity Strategy; addresses the critical issues involved in protecting biodiversity and maintaining ecological processes and systems. The Biodiversity Strategy is coordinated with other natural resources management mechanisms such as Regional Catchment Strategies, Regional Forest Agreements, and National Parks and Reserve planning.
- Action Statements under the *Flora and Fauna Guarantee Act*.
- Regional Forest Agreements.
- Forest Incursion Plans.
- Aboriginal Cultural Heritage Strategy.
- Victorian Protocol for Managing Marine Organisms.
- Directions for Ecological Research into Biodiversity Conservation and Management.
- Victorian Vegetation Framework.
- Building NRE Community Capability.
- Victoria's Salinity Management Framework.

## Environmental Management Systems

- Environment Planning Process of Parks Victoria – Environmental Management System (process of planning and prioritising) and Environmental Information System (process for monitoring and reporting).
- Sustainable Forest Management System (provides the framework for ecologically sustainable forest management in State forests).



## 3. Pest Management Principles

Six key principles underpin the VPMF. These principles apply to management approaches to both existing and potential pests.

### 3.1 Managers of land and water resources have a significant role in pest management

- Responsibility for pest management depends on the type of pest and the environment in which it exists.
  - 1 The management of terrestrial and freshwater weeds and terrestrial pest animals is principally the responsibility of each land and waterway manager.
  - 2 The management of declared aquatic pests (European carp) and noxious species in the marine environment (Northern Pacific sea-star and Spartina [rice grass]) is a community, industry and government responsibility.
  - 3 The management of species that have specific statewide implications such as plague locusts and fire ants is a land owner, community, industry and government responsibility.
- The Government's role in pest management (beyond its responsibilities as a public land and water manager) includes the provision of an appropriate legislative and policy frameworks and intervention (such as research, incentives, extension and in some emergency situations such as fire ants, direct management action) in areas of market failure. In this respect, the Government has an important role in fostering economic growth and environmental objectives. The way NRE, as an agency of government, may contribute additional resources in market failure situations is where:
  - 1 Regulatory or legal solutions alone may not be cost-effective and joint investment in the short-term may be preferred;
  - 2 Government contributions can facilitate a faster change in management practices towards a more sustainable system; or
  - 3 Additional investment is required to improve an on-site or off-site environmental value.

### 3.2 The effective management of pests requires an integrated approach as part of the broader management of land and water resources

- Land and water managers must work together for pest management to be effective across public and private land and waterways.
- Pest management needs to be integrated:
  - 1 Across the state, regional and local level; and
  - 2 With other species management programs, using a mix of best practice management techniques.
- Pest management needs to be considered in association with other resource management elements such as biodiversity protection, salinity control, vegetation management and agricultural, aquaculture, forestry and fisheries production. For this to occur, land and water managers need a clear understanding of techniques and goals and to accept responsibility for the action required.
- The development and resourcing of land and water management programs should consider the benefits of effective pest management to such programs.
- Pest populations need to be monitored due to their potential as vectors of exotic diseases.

### 3.3 Prevention and early intervention provide the most cost-effective means of pest management

- Early identification and intervention provides opportunities to minimise, or even eradicate, specific pests from the State or a region.
- The threat and risk posed by new species with pest potential to both economic and environmental values, needs to be assessed based on risk analysis with the assessment of risk undertaken before applying resources to major control or eradication programs. Priorities for action are to be established based on the likelihood of introduction into Victoria and the threat posed.
- It is not reasonable to expect that pests will be eradicated from a region or the State where they are well established. Established pests, however, need to be prevented from spreading into other valued areas at risk and their impact limited where they are established.
- Risks of introduction and spread must be communicated to the community so that attitudes and behaviour are modified, community vigilance increased and cooperative mechanisms developed to minimise these risks.

### 3.4 A duty of care operates for all land and water managers

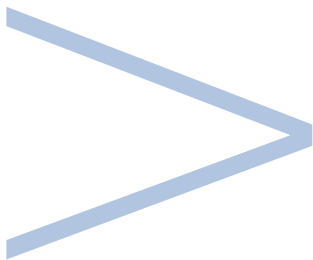
- Public and private land and water managers have a duty of care to ensure that their activities do not damage the land and water resources they manage, nor those of their neighbours, nor wider environmental values.
- The responsibilities flowing from the duty of care take precedence over consideration of shared investment principles. Where there is damage and it is not possible to identify the cause of damage, the beneficiaries should pay for the cost of the treatment. Details of the shared investment principles are provided in section 4.

### 3.5 Pest management activities must be in accordance with established standards of best practice

- Pest management will be based upon the appropriate application of research findings, monitoring and formal reviews.
- Management programs will need to be able to adapt to new or changed circumstances arising from the constantly evolving natural systems, the impacts of management and the progressive expansion of human activities.
- Management program results need to be monitored, procedures modified if required, and community understanding and support developed.
- All techniques will be the most effective, safe and humane methods available and best practice will focus on the overall objective of limiting damage to biodiversity and production.
- Management programs will take into consideration methods that do not have adverse on-site and off-site impacts.

### 3.6 Pest management must occur within a risk framework

- Pest management involves both risk and uncertainty. Risk refers to events of known probability. By contrast, uncertainty refers to a situation where less is known, for example, about possible undesirable side effects, particularly those affecting biodiversity, and the probabilities of particular outcomes cannot be assessed.
- Taking into account these considerations, resource managers will adopt a risk management approach to pest management, so that responses to pests are consistent with the risks posed by those pests.
- Risk management:
  - 1 Is the setting in place of policies and processes that enable risks to be identified and dealt with; and
  - 2 Aims to minimise the impact of undesirable events without discouraging appropriate risk taking and initiative.
- An effective risk framework enables the maximising of the objectives while ensuring the appropriate management of identified risks.
- A risk management approach consists of:
  - 1 **Assessment** of the economic, environmental and social risks posed by pests and the costs and benefits of addressing those risks;
  - 2 **Management** of the risks by developing partnerships between landowners, industry, all levels of government and the wider community; and
  - 3 **Communication** to stakeholders of the risks and the ways of addressing these risks.



## 4. Government Investment in Pest Management

Pest management is concerned with the effective management of weeds and pest animals to minimise their impact on the economic, social and environmental values of the local and broader community.

The management of terrestrial pest animals and terrestrial and freshwater weeds is principally the responsibility of each land manager and waterway manager. Like all managers, public land managers have responsibilities under the *CaLP Act 1994* to manage pests on their land. This responsibility is acknowledged and accepted.

The Government will primarily contribute to pest management in situations where that action results in public benefit, and will provide funding in accordance with agreed shared investment principles. Government investment in pest management will not seek to replace private investment, but may be used to encourage private investment to ensure a coordinated approach to pest management and that the spread of pest populations is reduced over time.

Significant public benefits may flow from State investment in pest management where this investment is used to slow the rate at which pest populations spread through the State. Every hectare invaded by a weed or pest animal causes economic and environmental loss, together with reduced opportunities for wealth creation or investment opportunities in regional communities.

### 4.1 Shared investment principles

Shared investment in pest management in Victoria is based on agreed guidelines for natural resource management in the State. Three principles are used to determine appropriate cost sharing arrangements for pest management activities.

## Duty of care

All private and public land and water managers have a 'duty of care' to ensure that they do not damage the land or water. Therefore, private and public land and water managers are expected to meet the costs of pest management in reaching and maintaining an acceptable condition of their land and water, and ensuring pests do not impact on other land or waters. In addition, people who use the land and water are responsible for meeting the costs of repairing any damage that results from their actions.

## Private benefit

People or organisations that use land and water are expected to pay for activities that provide them with a private benefit. For example, if pest management will provide an increase in income, or property value, for a landowner or waterway manager, then the landowner or waterway manager is expected to meet the cost of the work. Poor enterprise viability or management is not a justification for government to substitute public funds for landholder or waterway manager funding of remedial works.

## Public benefit

The Government may contribute to the cost of activities that produce a public or community benefit. The Government may also contribute to activities where there is market failure. For example, Government may meet the cost of eradication of serious new weed or pest animal species on private land or water in order to prevent widespread impacts on local communities, eg Alligator Weed and Fire Ants. For Government investment to be made the activity must be technically sound and the economic, environmental and social benefits must justify the costs.

Public benefit alone is not a sufficient reason for Government investment, particularly in cases where there is a clear responsibility or 'duty of care' for particular activities. For example, Committees of Management, or any occupier of Crown land, always have a duty of care responsibility for weed and pest control on land they manage. Public benefit is a condition of Government funding, not a purpose.

## Other considerations in deciding upon shared investments

The process of negotiating shared investment and monitoring outcomes must involve all stakeholders. If the process is based on inadequate or unfair representation of specific views then dissatisfaction with the process may jeopardise the project.

In situations where all the beneficiaries of its management are located in the same area, attempts should be made to first resolve investment sharing within the local community. Differential local government rates provide a mechanism that may be considered before any external resources are sought.

State, regional or local catchment plans provide the basis for planning shared investment projects in pest management. Intended activities must be consistent with these plans. Project funds need to be appropriately accounted for and the outcomes evaluated, with due recognition given to labour or other in-kind contributions from landholders when the input into the project is above the pest management activities of the property.

## 4.2 The basis for investment decisions

There is a need for a rational approach to the identification and implementation of suitable management programs to ensure the most efficient and effective use of public funds. Rational investment decisions by Government in pest management requires:

- A focus on the economic, environmental and social values to be protected and enhanced;
- A clear understanding of the impacts and significance of the threats both now and in the future;
- Programs which address those threats in a strategic way;
- Evaluation of programs in terms of the expected economic, environmental and social outcomes;
- A basis for prioritising the programs using high quality information; and
- A methodology to determine the appropriate level of funding to be made available.

While environmental and social benefits are not as easy to quantify as economic benefits, effort needs to be made to do so. Whether or not benefits are reduced to monetary terms, they need to be compared with project costs to ensure value for money.

The challenge is to use a standard investment decision-making process that provides for a more integrated and strategic approach for the management of pests across environmental, economic and social values. Where it is difficult to quantify the environmental and social benefits of pest management in monetary terms, a priority setting process will be adopted.

Such an investment strategy must be widely accepted throughout NRE, CMAs and other key stakeholders. This process should be transparent, assist in determining the amount of Government money provided for pest management and be capable of application at regional and sub-regional levels. The development of the investment decision-making process needs to occur within the context provided by established processes such as Regional Catchment Strategies, results of Bioregional Network Analyses using the Environmental Management Planning process of Parks Victoria and the Weeds Assessment Model used within NRE.

### *Objective 1 – Improve the process of making investment decisions in pest management*

Strategic Action	Key Responsibility	Partners	Timeframes
1. Develop a transparent, robust decision making process to evaluate choices in pest management and provide a rational basis for Government investment decisions, taking into account economic, environmental and social values.	NRE	VCMC, CMAs, industry groups and organisations	Draft process June 2003

### 4.3 Revision of declared pests in Victoria

The current noxious weeds and pest animal lists have not been revised since the introduction of the (CaLP) Act in 1994. These lists have primarily been built on the perceived levels of existing impact of the pests on agriculture. The impact of pests on environmental values has generally been neglected, as has the threat of new and emerging weeds.

The provision of classes of noxious weeds on a regional basis (Regionally Prohibited and Regionally Controlled) has allowed for appropriate weight to be given to a particular weed where its level of impact varies across the State however, this has caused problems where classifications of some weeds are not consistent across regional boundaries. These classifications need to be updated to remove these inconsistencies.

There is an urgent need to implement a process to revise the list of noxious weeds and pest animals. Clear and agreed criteria for declaration are needed to allow the revision process to occur. The revision process needs to take account of changes in farming systems and control technology as well as the current and potential economic, social and environmental impact of the pest. The process must be capable of responding quickly to new or emerging pests. It needs also to involve the Victorian Catchment Management Council (VCMC) and CMAs.

#### *Objective 2 – Speed decision making on weed declarations*

Strategic Action	Key Responsibility	Partners	Timeframes
2. Determine criteria for weed declaration, as part of the development by NRE of an investment decision making process.	NRE, VCMC	CMAs	December 2002
3. Develop a streamlined process for fast tracking the declaration under the CaLP Act of new or emerging weeds that pose a serious threat to Victoria.	NRE	VCMC	June 2003
4. Review and revise the lists of declared noxious weeds and pest animals progressively, removing pests whose listing cannot be justified and adding others having significant impact.	VCMC	NRE, CMAs	June 2004

### 4.4 Integration of pest management within and between land and water management programs

Although pests can add considerably to the costs of land and water management, most managers readily meet these costs when they are significantly outweighed by the benefits received by incurring them. While most pest management is carried out by land or waterway managers, they often act in their own interest and consequently individual action can result in little or no impact on the spread of pest populations over time.

Pest management requires the effective integration of the work at all levels of government, public land managers, landholders and waterway managers, industry and community groups, together with the general public. Successful pest management programs also require integrated action so that they are part of the holistic management of land and water at the state, regional and local level. Integration of pest management programs is also required between pest species eg. rabbit and fox, so a reduction in one pest species does not lead to an increase in another, or adversely

impact on native prey species. In addition, to encourage long-term change in the use and management of land and water, pest management programs also need to be integrated with actions that aim to reduce sources of disturbance and reinfestation, including road management, water channel management, and gravel and soil extraction.

The integration of pest management programs with other catchment change processes, as part of the integrated management approach that is being taken by the Second Generation Landcare Program, will continue. The future approach through this program will encourage land managers to address the impacts of pests on private land with high biodiversity value, and pests that threaten high value conservation areas on both public and private land. The key objective is to encourage long-term change in the use and management of the land. In these circumstances, the mechanism most likely to be effective is the establishment of funded management agreements.

A trial targeting remnant native vegetation is currently being carried out where, under these agreements, the land manager would undertake to alter the use (eg remove or reduce grazing) and improve the management (eg effective pest management) of a remnant to achieve an improvement in the quality of the vegetation. In return the land manager would receive financial recompense for these services. In offering these agreements, Government will have regard to the relative conservation significance of the land manager's native vegetation and the relative cost-effectiveness of the land manager's proposal. Once the trial has been completed further opportunities will be explored with agreements that address the wider impact of pests on land with high biodiversity values.

*Objective 3 – Ensure that pest management is included as a component of biodiversity protection programs*

Strategic Action	Key Responsibility	Partners	Timeframes
5. Explore innovative ways of integrating pest management with other approaches to encourage long-term change in the use and management of private land, particularly for biodiversity conservation.	NRE	VCMC, CMAs	December 2003 and ongoing

#### 4.5 Animal welfare as part of best practice pest management

A major issue for vertebrate pest management is to balance the concerns for animal welfare with the need to protect whole ecosystems. Today there is an increasing expectation in many sectors of the community that all animals, including pests, will be treated humanely. Aside from the moral obligation, failure to adequately consider animal welfare can cause major problems for pest management. Increased public concern has brought into question the continued use of poisons and other current techniques, such as trapping, for the control of vertebrate pests. In general, the National Consultative Committee on Animal Welfare has advocated the use of techniques that result in high level and long lasting control, therefore reducing the need to frequently apply controls. The techniques used however must still be as humane as possible. Regardless of the technique used, any program needs to be evaluated to ensure it meets appropriate best practice pest management, i.e. every pest management program should be appropriately planned and coordinated using the most effective, safe and humane methods available and which are aimed at long-term control. NRE also recognises the need for ongoing and constructive debate on animal welfare issues and has already demonstrated the benefits that can flow from such an engagement.

## Case study

In 1996 a seminar – *“Humaneness and Vertebrate Pest Control”* – was organised by the Vertebrate Pest Research Unit of NRE and included participants representing professional ethics, Animal Welfare, CSIRO, Victorian Farmers Federation, RSPCA and Universities. This seminar, held in Victoria, was in recognition that the scale of the impact of introduced animals in Australia and the accompanying scale of control should underline the need for an updated approach to this issue. It was organised to encourage various perspectives, and to promote understanding between stakeholder groups and to provide a basis for defining research directions into humane, effective and attainable control techniques. The seminar did identify common ground between the groups and resulted in research projects being undertaken by NRE into more humane vertebrate pest fumigation and predator baiting.

The effectiveness of encouraging stakeholder debate on this issue has now been successfully demonstrated. However, it is important to ensure that the momentum generated by debate is not lost. There is still significant work to be done to move forward on this issue.

*Objective 4 – Ensure animal welfare considerations are part of developing best practice pest management.*

Strategic Action	Key Responsibility	Partners	Timeframes
6. Continue to investigate improvement into humaneness of management techniques, as part of the development of best practice vertebrate pest management.	NRE	Animal welfare, VFF, municipalities, other research bodies, landowners, Landcare, industry and community groups	Ongoing

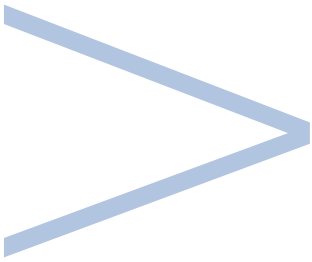
## 4.6 Using a risk framework to assist in determining pest management investment priorities

It is unrealistic to expect the Victorian community to eradicate or control the spread of all pests in the State, given the enormous costs involved. Resources should first be invested in assessing the impact of the pest and understanding the risks involved. The level of the risk and the corresponding treatment action then needs to be matched by the level of the value of the resource to be protected. With this information, improved pest management programs, which ensure the most cost-effective use of available resources, can be implemented.

For example, Branched Broomrape, which is a parasitic weed with major impacts on many horticultural crops, has a high level of risk given its close proximity interstate and because of the serious impact it could have on all broadleaf agricultural crops and grain exports if it became established in Victoria. Action to prevent its establishment is therefore a very high NRE priority.

*Objective 5 – Ensure risk management forms part of prioritising pest management investment.*

Strategic Action	Key Responsibility	Partners	Timeframes
7. Undertake risk management assessment to assist in determining priority pest management.	NRE	CMAs, Parks Victoria	June 2003 & ongoing



## 5. Statewide and Regional Co-ordination

### 5.1 Responsible agencies

Institutional arrangements for pest management in Victoria are robust and relatively straightforward. NRE has a statewide policy interpretation and legislative responsibility for pest management, as well as its responsibilities as a land and water manager. Catchment Management Authorities provide a regional focus to enable priorities for pest management activities to be developed within a catchment and landscape context. Land owners, waterway managers and public land and water managers, Landcare groups, industry, local government and the general community all play important roles in delivering pest management outcomes.

The roles of the key agencies that are involved in pest management are set out below.

#### Department of Natural Resources and Environment

The Department of Natural Resources and Environment (NRE) is the main State Government department responsible for the administration and the management of Victoria's natural resources and public land and water. NRE has policy interpretation and legislative responsibility for pest management and coordinates the implementation of the Government's pest management programs. These programs are delivered through the direct management of public land and water and through the provision of technical advice, enforcement action and financial support for private land and waterway programs. NRE is also responsible for delivering cost-effective advisory, educational and regulatory services in sustainable land and water management and agricultural industry development. The core drivers underpinning this delivery are customer relationships, quality products, business performance, empowered staff and rural people.

- **Public land managers** – Forests Division, Parks Flora and Fauna Division, through Parks Victoria, and Land Victoria - are the NRE Divisions responsible for the management of most public land in Victoria. The management of public land by Parks Flora and Fauna Division is directed through the Victorian Biodiversity Strategy, which is a whole-of-government document for the Victorian community with NRE being the lead agency for its implementation. Forest Management Plans are the principle strategic documents for land managed by the Forests

Division and incorporate pest management as a component of the Plans. Regional Forest staff work with the respective CMAs to implement these Plans.

- **Fisheries** – Fisheries Division provides services that support the sustainable use of Victoria's fisheries resources considering the economic, environmental and social values of these resources to our communities. Its purpose is to manage Victoria's fisheries and aquatic ecosystems sustainably for the optimal benefit of the community, with stakeholder support and participation. There are currently 116 species and species groups declared as noxious under section 75 of the *Fisheries Act 1995*. This list is currently being revised.

## Victorian Catchment Management Council

The Victorian Catchment Management Council (VCMC) was established under the *Catchment and Land Protection Act 1994*. Its role is to advise the Minister for Environment and Conservation on natural resource management issues and report on the quality of land and water resources.

## Catchment Management Authorities

The major role of Victoria's Catchment Management Authorities is to ensure the sustainable development of natural resource-based industries; the maintenance, and where possible, improvement of land and water resources; and the conservation of natural and cultural heritage. CMAs have a responsibility to inform their regional communities about the agreed programs, priorities and funding for pest management. CMAs guide the implementation of catchment priorities through advice to the State Government and Regional Assessment Panels on regional priorities for funding.

## Linear Managers eg. VicRoads

VicRoads (or local government acting as its agent) manages roads declared under the Transport Act (Freeways, Highways, Main Roads, Forest Roads and Tourist Roads) and is responsible for the implementation of pest management as defined under the *CaLP Act 1994* on these roads. VicRoads in partnership with other stakeholders implements strategies to ensure sustainable roadside biodiversity.

## Waterway Managers

Waterway managers have an important role to play in reducing the impact of pests, either directly through targeted action against specific pests, particularly freshwater weeds or weeds growing along channels and river frontages, or indirectly through appropriate channel or river frontage management works. Waterway managers include Rural Water Authorities who are responsible for irrigation and drainage channels, CMAs who act as inland water managers, including unlicensed river frontages and Urban Water Authorities who are responsible for specific water catchment areas.

## Local government

Local government has an important role to play in natural resource management as it has relatively broad powers in relation to environmental control, protection and conservation, as well as being a land manager. Local government, through the local planning scheme, determines the appropriate use and development of land. As part of the scheme, they must have regard to relevant aspects of regional catchment strategies and any associated implementation plan or strategy approved under the *CaLP Act 1994*. Statutory planning provides an essential framework for future sustainable regional development. Local government (when acting as an agent for VicRoads) also has responsibilities for pest management on roadsides under its management.

## 5.2 Statewide planning

Effective strategic planning and integration at a State, regional and local level is an essential element in pest management success. It is essential to set priorities for pest management programs, because they may require a large number of resources. Responses to existing pest problems require a clear focus on the values that are to be protected and enhanced, such as sustainable agriculture, biodiversity and the social needs of communities. Figure 1 shows the steps involved in planning a strategic response to a pest problem.

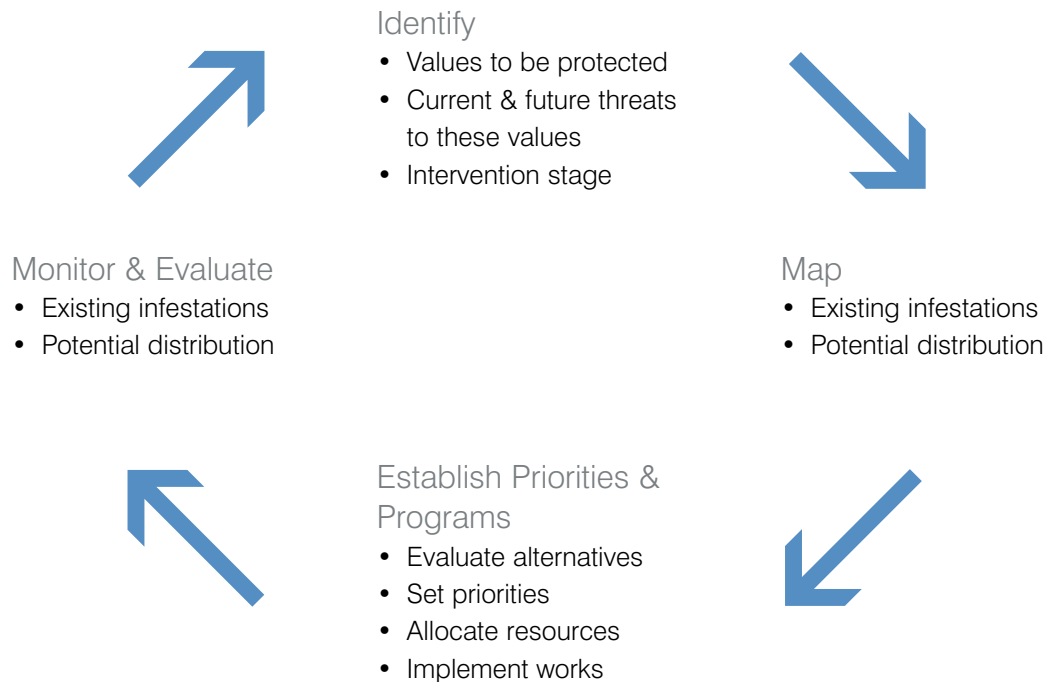


Fig 1 An outline of the pest management planning process

It is critical that pest management programs are integrated within the strategic planning cycle. The cycle recognises the importance of consistent methodology and effective working partnerships. It provides a statewide focus for the evaluation and prioritisation of programs, and takes into consideration the risks of a pest threat in one region spreading to another region. The planning cycle enables the participation of stakeholders and supports the development and implementation of programs.

As previously outlined, the VPMF provides a comprehensive planning framework for pest management in Victoria. It provides an overarching structure that gives strategic direction to current and future statewide terrestrial and aquatic species' strategies and regional pest management Action Plans. The regional Action Plans will in turn provide the strategic directions for the development of local plans. The VPMF has taken account of the extensive planning and stakeholder consultation that has gone into the development of existing regional plans and strategies. It recognises that the requirements of each region are different and that pest management is only one part in the holistic management of catchments.

The VPMF will be supported by a series of statewide terrestrial and aquatic pest management strategies. Each of these documents will set out the reasons for Government investment, the goals and objectives, standards and performance indicators and the actions required of each stakeholder in the program. Figure 2 illustrates the relationship between policy areas across local, regional, state and national levels.

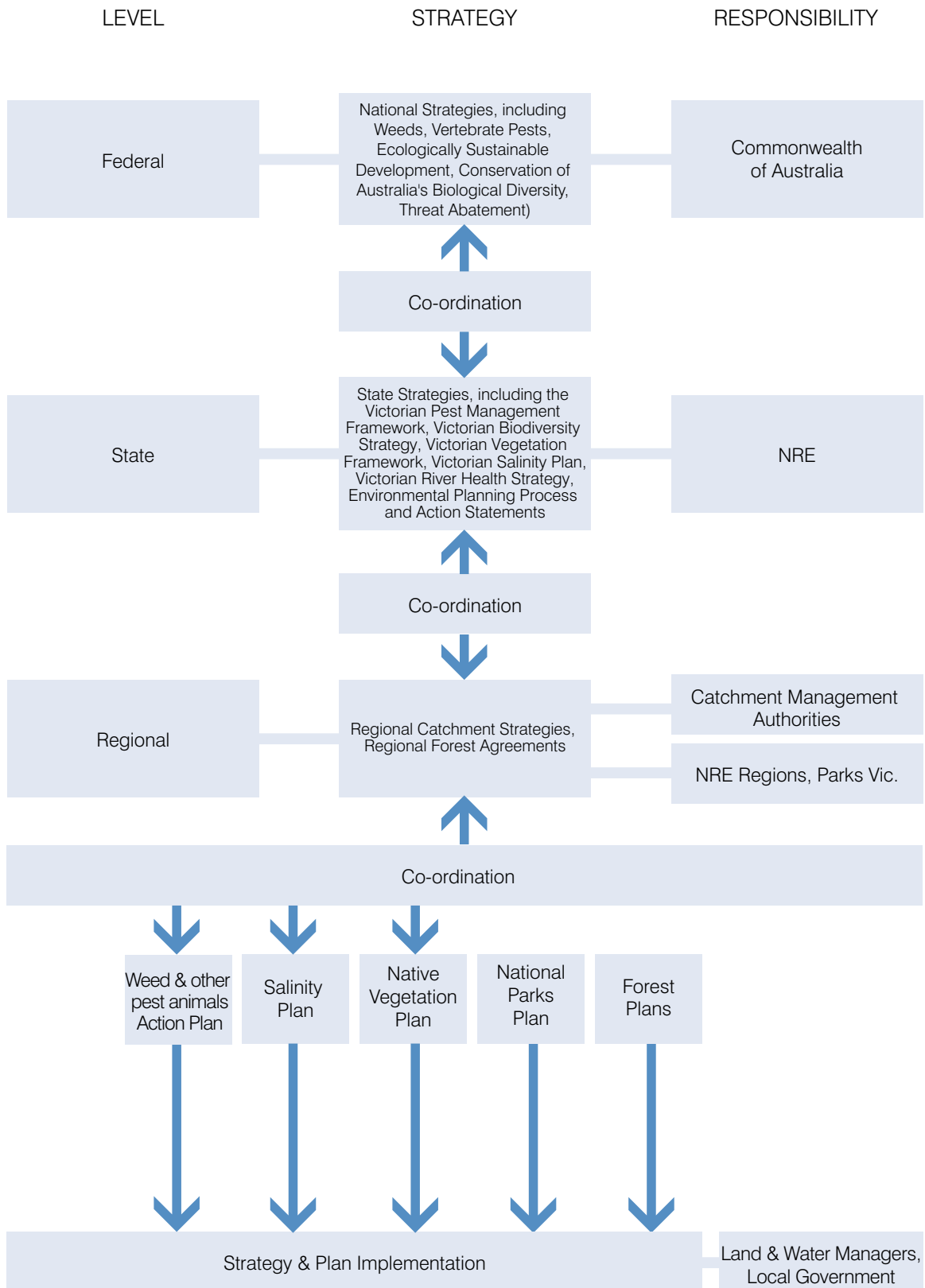


Fig 2 Integration and coordination between policy areas across Federal, State and regional levels.

### 5.3 Regional planning

Victoria's strong integrated catchment management framework represented by the ten CMAs provides appropriate mechanisms for integrating pest management as a key element of Regional Catchment Strategies and Actions Plans. Regional weed, rabbit and other pest animal Action Plans have been, or are being, developed by CMAs, in partnership with NRE, to provide a regional pest perspective that complements each CMA's Regional Catchment Strategy.

The Action Plans provide the framework needed for Government and community investment in pest management. They set out the principles for resource allocation and regional priorities for action that are consistent with the principles for implementation and the roles and responsibilities of the various sections of the community.

Regional Action Plans are consistent with the directions of the VPMF. They will be reviewed at regular intervals to ensure that they continue to meet State and regional pest management needs. The role of the CMAs in developing Regional Action Plans has been particularly important. They have extensive experience in consulting widely with stakeholders, mainly on private land. CMAs need to further involve public land managers and local government to ensure that pest management is effectively integrated with other land management programs.

### 5.4 Coordination and partnerships

Effective pest management programs cannot be delivered by Government alone. Partnerships between all levels of Government, the wider community and key industry and farming groups are a key element in the successful implementation of the VPMF.

Achieving the outcomes outlined in this framework will require an understanding of the role of pest management within the landscape. The process of determining priorities is by necessity complex. A number of benefits flow from weed and pest animal management. These include increased production, protection of native flora and fauna, plantation protection and control of soil erosion. However there may also be negative impacts on some onsite and/or offsite values.

NRE has been very successful in developing effective partnerships with the community to ensure that broader, coordinated pest management programs are effectively carried out. Where pests are managed in a way that optimises economic outputs and environmental quality, social benefits also accrue in terms of decreased stress levels and improved social well being.

In this instance, the Government is a primary source of research and monitoring, a provider of seeding or incentive funding, has a responsibility under legislation for enforcement and is a source of technical knowledge. It is also responsible for on-ground action in its role as a public land and water manager. Private land and waterway managers bring to the partnership their investment in pest control on their own land (as required by law and good land management), important local knowledge and understanding of local community networks and values.

The management of pests at a State and regional level requires a strategic and coordinated approach. To ensure this occurs the following coordination and reporting relationships will be established.

- 1 A Government Committee comprising all State Government agencies involved in pest management to provide a "whole of Government" response to pest management in Victoria. This Committee, which will report to the Minister for Environment and Conservation, is to maximise statewide coordination and enable reporting of total Government effort regarding pest management.
- 2 A Pest Management Coordinating Committee will be formed within NRE involving all relevant Divisions to provide a "One NRE" approach to pest management.

3 A pest management coordinating process within each CMA to provide a whole of catchment approach to ensure effective interaction between the community, via the CMA, NRE, other State government land managers, waterway managers and local government. The outcomes from this process will form part of the CMA's formal reporting to the Minister.

The challenge for effective working partnerships is to ensure partners are clear on their responsibilities and commitments to pest management. There should be no unrealistic expectations placed on any group. For example, many land and waterway managers are not fully aware of their responsibilities for pest management, especially if it has little obvious impact on their own economic situation.

There may also be confusion between private and public land managers about their responsibilities under the *CaLP Act 1994*, where other legislation such as the *National Parks Act 1975* relating to their specific management puts a different focus on resource management. Management of weeds and pest animals is seen as one of a number of competing budget items in public land management. As detailed in Section 7, public land and water managers have a clear and accepted responsibility for the management of pests that threaten the public land and waters as well as those pests that impact on adjoining private land values.

One area that provides the potential for improved partnerships is the relationship between local government and NRE. In recent years there has been a developing partnership between NRE and local government to address weed management in a more meaningful way. Local government has begun to recognise the interrelated nature of good weed management and a healthy environment and economy.

A number of innovative projects have been developed that demonstrate local government's capacity to be important partners in pest management. These projects recognise and reward land managers for carrying out pest management by offering rate rebates or other incentives. These provide a very effective vehicle to directly target, communicate with, and motivate private land managers to carry out pest management.

Other approaches adapted by a range of local governments could be broadly categorised as:

- Community weed management strategies;
- Weed mapping, including on roadsides;
- Community awareness; and
- Local involvement in statewide weed programs.

This capacity has enormous beneficial implications for the future development of joint partnership programs for weed management with NRE and the community and, more generally, the protection and enhancement of our natural resource capital in Victoria.

Other areas that could potentially be developed relate to vendor obligations at the time of subdivision of titles and giving clear advice to new landowners at the time of purchase, regarding their pest control responsibilities.

### Case study – Local government and weed management

One example of the capacity of local government to be a key partner in pest management has been the development of a strategic approach to weed management through a rate incentive in the Shire of Strathbogie. Underpinning the incentive is a policy of rate relief for rural landowners who comply with the requirements of the Shire's Land Management Program, which encompasses Community Land Management Goals. For complying landowners the Rural Land Rate is granted, which is 80% of the general rate. The Goals were developed through substantial community consultation and cover a number of priority weed species in different areas of the Shire. Community awareness, evidence of compliance, reporting and field inspections are strong components of the scheme.

Objective 6 – Ensure effective statewide and regional coordination

Strategic Action	Key Responsibility	Partners	Timeframes
8. Coordinate a “Whole of Government” and “One NRE” approach towards pest management.	NRE	VCMC, other government departments, Parks Vic, municipalities	June 2003 and ongoing
9. Provide a “whole of catchment” regional coordination and reporting process with the community, NRE, other State Government land managers and local government.	CMAs	NRE, Parks Vic, municipalities, landowners, Landcare, industry and community groups	June 2004 and ongoing
10. Encourage a collaborative focus on effective pest management through partnership programs with key stakeholders, including VicRoads and local government.	NRE	Municipalities, VicRoads, Parks Vic	December 2002 and ongoing
11. NRE will develop and release: <ul style="list-style-type: none"> <li>• A resource document outlining innovative approaches that have been undertaken by local government in pest management, particularly weeds, to encourage their wider use; and</li> <li>• An information document clarifying roles and responsibilities for pest management under the <i>Catchment and Land Protection Act</i>.</li> </ul>	NRE	Municipalities	December 2002
	NRE	CMAs, Vic Roads, VFF, Municipalities	June 2003

## 5.5 Improved Aboriginal involvement

One of NRE’s objectives is to “Apply a Whole of Government approach to improve Aboriginal well being through partnerships to achieve Aboriginal aspirations for land, culture, heritage, family and community”. Aboriginal cultural heritage places, both recorded and as yet not recorded, are protected by the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* and the *Archaeological and Aboriginal Relics Preservation Act 1972*. Aboriginal Affairs Victoria is part of NRE and as such, the communities and the issues they deal with must be considered as an important link in the process when NRE is giving advice to land and waterway managers about managing pests. Effective engagement is required between Aboriginal communities and NRE to explore and discuss heritage interests as well as the practicalities of managing pests, particularly rabbits, in known or likely areas of cultural heritage significance.

Objective 7 – Improve Aboriginal engagement in pest management

Strategic Action	Key Responsibility	Partners	Timeframes
12. Develop an effective Aboriginal engagement process for dealing with pest management issues, including reporting and developing regional and local working relationships.	NRE	Aboriginal communities	June 2003 and ongoing



## 6. Support for Private Land & Waterway Managers

Private land and waterway managers have clearly defined pest management responsibilities. Under the *CaLP Act 1994* pest management is principally the responsibility of each land manager (this also includes water on the land). In carrying out management activities, managers need to appreciate the implications of 'duty of care' as it applies both to the land and waterways for which they are responsible, and to external impacts on adjacent land, including public land. Land and waterway managers must develop and implement environmentally sound and cost-effective pest management practices against designated priority State and regional pest species. The community also has a responsibility not to accidentally or deliberately promote the establishment of new or emerging pests, or the spread of existing species.

Pest plants and animals have been identified as the most significant issue facing Landcare groups across Victoria. Most land and water managers voluntarily carry out pest management as it is in their own interest to do so. While existing Government support, through NRE, is targeted at supporting these activities, there is a need to further focus support in particular areas.

The Government will provide support through specific action to prevent the establishment of new pest species, research into improved management techniques, and access to pest management information. The Government will also upgrade enforcement legislation against land and water managers who do not fulfil their pest management responsibilities. Incentives will be provided for public good pest management on private land in line with regional priorities detailed in CMA Action Plans, and shared investment principles.

## 6.1 Prevention and early intervention

The most cost-effective mechanism to deal with pest issues is either to prevent their establishment, or to intervene early when new pests are identified. Land and water managers usually act to control those pests having an obvious impact on their use of the land or water. This generally occurs when numbers and impact are already high. The costs of control may then become an ongoing land management investment. By contrast, Government intervention is most effective in preventing incursions reaching this level, that is, intervention is most effective when numbers are low. The provision of information to raise awareness and encourage early action is an effective contribution that Government can make in the community interest. Research into appropriate control measures, encouragement of collective action and enforced control are further investments the Government may make for community benefit. Such early Government intervention would help minimise the total impact of a new or emerging pest on the community.

Once pests have spread to their full geographic range and are well established, Government intervention in reducing the impact is much less effective. At this stage, the activities necessary to reduce pest impacts should be decided principally by the landowner or waterway manager, group or industry affected. Research and development has a very important role to play in analysing the risks the pests pose and providing information that will affect their management.

Priority should be given to restricting the sale of environmental weeds through nurseries and informal markets, or their distribution through garden clubs, botanical societies or other avenues. In the event of a new pest incursion being identified, the precautionary principle should be applied, and early eradication of new pest infestations should be the primary objective. This will be the strategic approach to new pest incursions under this Framework.

### *Objective 8 – Ensure early response to infestations of new pests*

Strategic Action	Key Responsibility	Partners	Timeframes
13. Develop a 'weed alert' mechanism to quickly identify significant new and emerging weeds. Once established this will be extended to include pest animals and form a "pest alert" mechanism.	NRE	VCMC, CMAs, CRC	December 2002

## 6.2 Developing the knowledge base

Knowledge is required to effect change. Catchment Management Authorities need to understand the vital part pest management plays in the overall nature of catchment processes. Individual land and water managers need information on the types of pest management techniques and the impact on their farming or management practices.

Public land and water managers need to understand the impact that management techniques have on the environment and the risk posed to adjacent private land. Land and water managers (both public and private) are encouraged to see pest management as an integral part of whole farm, waterway and public land planning, and to look for integrated solutions that will address a range of problems (such as pests, salinity and biodiversity conservation).

Research is a key for building the capacity for land and water managers to effect change. The knowledge and understanding that comes from research allows managers to develop appropriate management responses. There are potentially large benefits that can be derived from properly focussed investment in research. Research is the most cost-effective long-term

approach for minimising the impact of established pests and will continue to be a priority under this Framework.

The community, including individuals, local groups, industry groups, organisations, water authorities and the CMAs, has an important role in planning and monitoring research programs. They are closest to the pest problems, and are dependent on effective methods to deal with pests. To enable them to make informed input to research directions, they need to be supported with adequate objective information on pest impacts and likely outcomes.

Government has made significant investment in knowledge generation in Victoria, directly through its weed research program at the Keith Turnbull Research Institute (KTRI), and its vertebrate pest animal research program at the Victorian Institute for Animal Science (VIAS). These programs primarily focus on the protection of agricultural industries and biodiversity in native ecosystems. In addition, research resources are available to Victoria through universities and a significant source of practical knowledge is also available through local public and private land managers. Close collaborative relationships also exist with other research and development providers throughout Australia and New Zealand with a view to optimising the delivery of solutions to pest problems in production and the natural environment. Government will continue to cooperate with private industry in developing cost effective and environmental sound solutions for the management of pest problems.

Research managers will be encouraged to take part in collaborative programs that address priority issues in Victoria. There will be appropriate processes for evaluation and monitoring of research programs. These processes will be applied consistently to all pest research projects across the State.

To provide direction for government investment, a Weed Research and Development Plan has recently been developed to guide research activities over the next five years. In summary the Plan:

1. Recognises the conflicting demands on a limited budget and the imperative of determining priorities for the allocation of funding – Research and Development versus application of existing information; and
2. Recommends:
  - That the knowledge gaps be addressed by a long-term investment strategy and structured process for prioritising projects;
  - The need to continue and expand the current assessment system to develop priorities;
  - The establishment and funding of a “Weeds Team” to implement the Plan and in consultation with stakeholders, develop and agree on cost-sharing arrangements for each priority project; and
  - The adoption and implementation of a research management model developed and used by NRE Division of Agriculture.

NRE needs to finalise this Plan. It is then essential that resources are available to implement it. In addition, a Research and Development Plan is required to guide vertebrate pest animal research over the next five years.

### Objective 9 – Ensure effective research

Strategic Action	Key Responsibility	Partners	Timeframes
14. Provide a coordinated and strategic focus across NRE to ensure that pest management research is based on appropriately developed priorities.	NRE	Parks Vic, VCMC	December 2002 and ongoing
15. Finalise the Weed Research and Development Plan	NRE	VCMC	December 2002
16. Implement the agreed recommendations of the Weed Research and Development Plan.	NRE, VCMC	CMAs	June 2003 and ongoing
17. NRE research will be: <ol style="list-style-type: none"> <li>1 Targeted at long-term solutions to priority pest problems; and</li> <li>2 Closely aligned to priorities established through a rigorous planning process, including addressing knowledge gaps identified in State and Commonwealth Strategies and Action Statements, Regional Action Plans and other key documents.</li> </ol>	NRE	CMAs	Ongoing
18. Develop a Vertebrate Pest Animal Research and Development Plan to guide research activities over the next 5 years.	NRE	CMAs	June 2003

## 6.3 Using pest management knowledge effectively

NRE is a major supplier of extension information on pest management. Other sources of information include commercial suppliers, producer organisations, local government, plant nurseries and a number of community-based groups that have been established to support good land and water management. Basic information on pest identification, status and treatment must be readily available to land and water managers to enable them to carry out effective pest management and fulfil their legal responsibilities. This is particularly so for new and non-resident land and waterway managers and in the nursery trade where there may well be a conflict between commercial production and environmental protection.

Projects funded by Government have provided models that have been led by local government for well-targeted and coordinated action by a partnership between State and local government, the local community and individual managers to control pests. The nature and scale of these models vary but basically cover the range from overall pest management within a given municipality to broader programs focused on a particular pest such as serrated tussock.

Objective 10 – Enhance effective information flow

Strategic Action	Key Responsibility	Partners	Timeframes
19. Continue to develop and deliver innovative extension/education programs within the State and regions, with the aim of increasing the effectiveness of the distribution of information and pest management outcomes.	NRE, CMAs	Agriculture service industry, municipalities, landowners, Landcare, industry and community groups	Ongoing
20. Develop a new web-based information site for pest management within the existing NRE web site. This site will provide ready access to NRE pest management policy statements and strategies, NRE and external pest management advice and information, and CMA pest management Action Plans.	NRE	CMAs, VFF, agriculture service industry, municipalities, landowners, Landcare, industry and community groups	December 2003 and ongoing
21. For those unable to access the website, the role of NRE's Customer Service Centre will be enhanced to provide basic pest management information on key issues.	NRE	CMAs	December 2003 and ongoing

## 6.4 Enforcement of responsibilities

The *CaLP Act 1994* provides the legislative foundation to manage declared pests in Victoria. All land and water managers (public and private) are required to take all reasonable steps to control pests on their own land and prevent the spread to other land. There is community concern that despite significant investment by NRE in enforcement, many landholders are still not meeting their responsibilities under the *CaLP Act 1994* to control pests.

The Government is committed to an increased focus on pest management. A major part of this focus is the substantial increase in the use of enforcement. Enforcement will be focused to support CMA Action Plans and where action will increase results, where the groundwork has been done through advisory activities and where community expectation for enforcement is high.

However, in undertaking enforcement, the relevant provisions under the existing *CaLP Act 1994* are often cumbersome and complex. Various recommendations have been made by the Environmental and Natural Resource Committee Inquiry into Weeds in Victoria (1998) and others to improve this process. The enforcement provisions need to be reviewed to make them easier to implement, and to set reasonable timeframes within which remedial action is completed.

Regional NRE staff also need defined support mechanisms in relation to enforcement training and implementation processes. On a statewide basis there is also a need for standardised operational and reporting processes to ensure that the potential of this Program is maximised.

Local government has significant responsibility for the sustainable use and development of land under the *Planning and Environment Act 1987*, and some municipalities have taken a leading role in the delivery of pest control programs. Some local governments have also expressed a willingness to become more involved in pest management activities in their area, under the *CaLP Act 1994*, or via by-laws under the Local Government Act, but there is no uniform policy approach to respond to this willingness. Any involvement by local government under the *CaLP Act 1994* must only occur after State and local government roles and responsibilities are agreed upon and not be at the expense of existing NRE resourcing.

*Objective 11 – Improve the effectiveness of enforcement*

Strategic Action	Key Responsibility	Partners	Timeframes
22. Amend the <i>CaLP Act 1994</i> to: <ol style="list-style-type: none"> <li>1 Streamline administrative processes;</li> <li>2 Remove the deficiencies that have been encountered by NRE staff in using the current legislation;</li> <li>3 Separate exotic vertebrate pest species that have the potential to become established from those that are already established;</li> <li>4 Focus on preventing the damage to environmental, economic and social values rather than just the failure to comply with the provisions of a land management notice; and</li> <li>5 Clearly identify and clarify the role of local government and others under the <i>CaLP Act 1994</i>.</li> </ol>	NRE, VCMC	CMA, municipalities, VFF, landowners, Landcare, industry and community groups	December 2002
23. Develop clear policy statements and operational standards that set out the criteria for enforcement, procedures to be undertaken and clarify the respective roles and responsibilities for NRE, CMAs and local government.	NRE	CMAs and municipalities	December 2002
24. Appoint a statewide compliance leader to coordinate NRE's pest management enforcement program.	NRE		July 2002

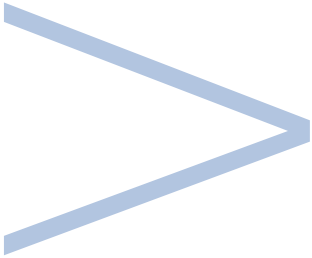
## 6.5 Incentives for pest management

Incentives for pest management are offered under the Second Generation Landcare Program to influence the quality and quantity of pest management conducted by the community. Grants are prioritised under the Catchment Management Authority Regional Assessment Panel (RAP) process.

The past focus on land manager incentives to directly manage pests has often failed to consider wider biodiversity values. Although most areas of high biodiversity value are found on public land, there are significant conservation values needing protection on private land. More specifically there are significant problems in encouraging pest control on private land that have low commercial worth, but high environmental value. Future incentives need to consider new and innovative means to encourage biodiversity protection.

*Objective 12 – More effectively target pest management incentives*

Strategic Action	Key Responsibility	Partners	Timeframes
25. Review current incentives programs with a view to optimising resources available for pest management on private land, roadsides and public land, including market-based incentives.	NRE	Landowners, VicRoads, municipalities, Parks Vic	December 2002 (Foxes) and ongoing
26. Include the protection of biodiversity values from the impacts of pests in future NRE incentive programs.	NRE	CMAs	June 2003 (Rabbits) June 2004 (Box Ironbark) and ongoing
27. Focus grants to where the greatest public good can be achieved to meet priorities set out in regional Action Plans.	CMAs	NRE, landowners, Landcare, industry and community groups	Ongoing



## 7. Public Land Management

### 7.1 Protection of public land values

The community has high expectations for Government management of public land. Strong interest is regularly expressed for both minimising the impact of pests on the conservation values of the public land and in preventing pests from invading adjoining private land. While public land management is a specific sub-strategy under this framework, it is appropriate that the basic directions that will be taken are detailed in this document.

Pest management on public land is designed to contribute to meeting the strategic priorities of ecologically sustainable development, enhanced biodiversity values, improved natural resource management and effective community engagement in decision making. Pest management is a major component of effective stewardship of public land and is an integral part of sustainable and integrated land management in Victoria's catchments.

NRE will allocate appropriate levels of funding to pest management to meet their responsibilities as effective stewards of public land, including their responsibility as a neighbour. Given that funding for pest management will never be sufficient to eliminate the problem completely, the key is maximising the benefits of the funds available by prioritising activities.

The two main objectives – minimising the impact of pests on the values for which the public land is managed and reducing the impact of pests on public land on adjacent land – direct the priorities. In particular, biodiversity protection and productivity protection are the highest priorities for NRE. Equally, private land and waterway managers also have a responsibility to ensure that pests do not spread from their land or waterways onto public land or waters.

Where the activities of pest management on public land and waters primarily benefit the land itself and the values for which it is managed, pest management is a core responsibility for the relevant public land manager. The funding process for these programs will be transparent, and resources will be allocated to meet priority issues and provided at a level that meets NRE's responsibilities under the Victorian Biodiversity Strategy.

Public land managers will be engaged as part of a formal regional process that will enable all pest management activity carried out within a CMA region to be planned and reported on in a

coordinated manner. Section 5.4 detailed the way in which a 'whole-of-catchment' reporting process will occur. While the budget responsibilities, including resource prioritisation and allocation, and implementation of public land programs will remain solely with the respective public land managers, they will use this new process to report on public land pest management programs.

## 7.2 Good Neighbour Program

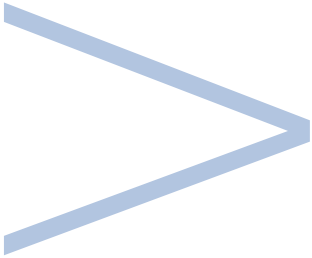
The Good Neighbour Program (GNP) will be managed to solely address the economic and social impacts to the community resulting from pest problems on public land. In keeping with the community-led processes which result in CMA Regional Assessment Panels prioritising projects for grant allocations from Government, there is a clear need for GNP to be similarly managed. This is to ensure the maximum coordination between GNP and private land incentive programs funded by Government. Regional Catchment Strategies and Action Plans will be used to assign priorities and funding to projects.

The distribution of GNP funds across the State will initially be based on the current geographical distribution of funds in the Program. Funds will remain with NRE but will be allocated to priority projects that are determined by the CMA Regional Assessment Panels in consultation with regional Technical Panels, regardless of public land tenure. Potential GNP projects will be put forward to the Panels through a process that will provide for both the community and public land manager's input. The Good Neighbour Coordination Committee will establish a set of criteria to be used by the Panels in the determination of priorities for projects.

A standard performance monitoring and reporting mechanism will be developed to provide accountability and continuous improvement across the Good Neighbour Program.

### *Objective 13 – Improve pest management on public land*

Strategic Action	Key Responsibility	Partners	Timeframes
28. Implement and report on pest management programs on public land to meet responsibilities established under the Victorian Biodiversity Strategy.	NRE	Parks Vic	June 2003 and ongoing
29.1 Align regional investment under the Good Neighbour Program with priorities identified in Regional Catchment Strategies and Actions Plans, irrespective of public land tenure.	CMAs	NRE	December 2002 and ongoing
2 Assign priorities, in consultation with regional Technical Panels, to projects that resulted from community and public land manager input.	CMAs	NRE, Parks Vic, landowners, Landcare and community groups	June 2003 and ongoing



## 8. Roadside Management

The *CaLP Act 1994* adopts a shared approach to managing weeds and rabbits on roadsides. It recognises management responsibilities of those managing the land, the significance of particular weeds, responsibilities of some of those causing the problem and identifies those who benefit from action taken on pests.

The responsibility for eradicating and controlling the spread of weeds and rabbits on roadsides depends on both the category of the weed and the class of road. Currently on behalf of the State Government, NRE attempts to eradicate State Prohibited Weeds on all land and Regionally Prohibited Weeds from roadsides, and VicRoads (or local governments acting as its agent) has responsibility for managing all noxious weeds (except State Prohibited Weeds) and rabbits on the declared road network which includes highways, freeways, main roads and tourist roads. Adjoining landowners, including Committees of Management, are responsible for their respective control of Regionally Controlled Weeds and rabbits on 'local' roads.

The focus for the provision of funding for pest control on roadsides needs to start with the values being protected. Roadsides are widely recognised as containing remnants of locally indigenous vegetation. Thus, they are often of high biodiversity value, and are an important focus for vegetation retention and improvement. VicRoads has estimated that about 20% of declared roads have significant environmental values. The protection of these values requires control of both weeds and pest animals. Roadside pests can also pose a threat to adjacent public and private land, affecting economic, environmental and social values.

Local government also has responsibilities under the *Planning and Environment Act 1987* for preparing roadside management plans, and for implementing native vegetation retention controls through the planning scheme. Many municipalities have acted proactively to assist in the management of roadsides through the control of pests.

NRE has a key role in supporting VicRoads (or local governments acting as its agent) in managing pests on roadsides under their responsibility. Funds for this purpose should take into account the values being protected, the degree to which the State, local communities and adjacent land managers would benefit from pest control and be integrated with other practices aimed at protecting the values of roadsides. To that extent funding could come from both private and public sources.

## 8.1 VicRoads, local government and roadsides

VicRoads (or local governments acting as its agent) has an important role to play in roadside pest management. Support will be provided by NRE to further engage VicRoads (or local governments acting as its agent) to be involved in planning and coordinating roadside programs and other innovative approaches to add value and to facilitate a broader ownership of pest management.

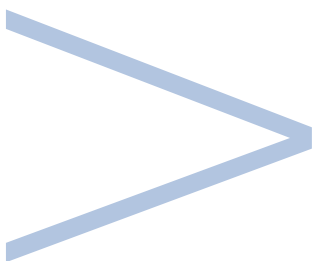
### Case study – Agreed process between NRE and Vic Roads – Gippsland

The Government, through NRE, provides Vic Roads with a Gippsland weed program for Declared Roads under the *Transport Act 1983*. The program is compiled from information provided from roadside inspections and observations by NRE staff. The program, which commenced in 1996, is reviewed every two years. Information provided under this process includes; road name and Vic Roads number, weed species, optimum treatment time, recommended chemical, main infestation sites, estimation of time required to treat infestations and priority species for treatment. To accommodate seasonal conditions NRE staff advise Vic Roads about three weeks before treatment is required.

Liaison for localised issues is between NRE staff and the responsible Vic Roads Officer. The NRE project supervisor and the responsible Vic Roads Officer normally address Gippsland-wide issues. In addition, meetings involving senior pest and weeds staff and Vic Roads management and engineers are held each year. This partnership approach has resulted in a very effective roadside weed program that has targeted agreed priority weeds.

### Objective 14 – Improve roadside pest management

Strategic Action	Key Responsibility	Partners	Timeframes
30. Establish effective working partnerships with VicRoads (or local governments acting as its agent) and provide increased support to roadside pest management on roads under its responsibility.	NRE	Agriculture service industry, municipalities, landowners, Landcare, industry and community groups	Ongoing
31. Develop and provide advice to Government on actions that will assist respective parties to carry out their responsibilities for roadside pest management.	NRE	CMAs, VFF, municipalities, landowners, Landcare, industry and community groups	December 2002 and ongoing



## 9. Managing Native Wildlife that sometimes cause problems

While not the primary focus of this Framework, there are many species of native wildlife (mainly birds and mammals) that come into conflict with human interests through their impacts on crops, property or infrastructure and reference to the management principles to deal with these conflicts is appropriate here.

### 9.1 Conservation of the species involved is paramount while reducing impacts

- It is not reasonable to expect to eliminate wildlife from a property or from a region.
- All native wildlife are protected under the *Wildlife Act 1975* but that Act provides mechanisms to enable the control of wildlife to ameliorate their impacts on human interests.
- Native wildlife management applies primarily (but with some exceptions) to private land. Public land often has biodiversity protection as an important objective, with native wildlife being an integral part of that biodiversity. In some instances native wildlife adversely impact on agricultural production and biodiversity values on both public and private land.

### 9.2 Management of wildlife is principally the responsibility of each land manager, within the constraints provided by the relevant legislation covering native wildlife

- NRE's current policy on managing wildlife is to provide information and advice to landowners on ways of reducing adverse impacts of wildlife on their properties. This is achieved through a series of information notes and other extension material relating to problem wildlife.
- Although the emphasis is on non-lethal damage reduction methods, where these have not provided relief, or where such measures are inappropriate, NRE may provide landowners and public land managers with the ability to destroy some wildlife. Where an Authority to Control Wildlife is issued, there are strict conditions on the numbers permitted to be destroyed, and the means of destruction, to ensure that no wild populations are put at risk and the animals are destroyed in a humane manner.

- Wildlife species may be declared unprotected by a Governor-in-Council Order. This mechanism allows the control of those species by the classes of persons specified in the Order. The conditions applying to such an Order are legally binding.

### Case study 1 – Cockatoo control at Dadswell Bridge

Dadswell Bridge, situated on the northern end of the Grampians National Park, has been well documented as a problem area for cockatoos and corellas. This area had experienced significant bird damage for the last ten years, with the damage getting progressively worse. It was not uncommon to see several flocks of birds between one and three thousand creating a large problem for farmers at both sowing and harvesting time.

NRE coordinated a trapping and gassing program at Dadswell Bridge late in 1999 as part of a statewide trial. It was during this time that the extent of the problem at Dadswell Bridge was realised.

At the start of the 2000 trapping season NRE, together with the Dadswell Bridge Landcare group, organised an action group, which involved farmers setting up various free feed sites and closely monitoring bird behaviour to find the most successful trapping site. With the help of the community action group and skilled trappers a successful result was achieved which split up large flocks and minimised bird damage to the farmer’s crop. Since trappers began operating, particularly in 2000 trapping season, damage has been substantially reduced. All Dadswell Bridge farmers are still experiencing the spin off effects of the 2000 program.

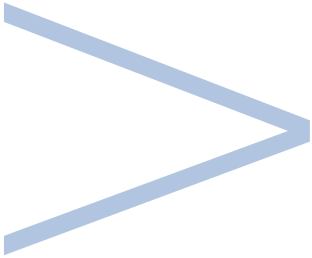
With farmers increased knowledge of bird behaviour and the use of the trapping teams, the cockatoo control program is contributing to reducing bird damage. It is envisaged that with adequate training and experience the community will be in a position to play a much more active role and undertake trapping and gassing in the future.

### Case study 2 – Macropod control

In Victoria, Red Kangaroos, Eastern Grey Kangaroos, Western Grey Kangaroos, Swamp Wallabies and Red-necked Wallabies may be destroyed under the conditions of an Authority to Control Wildlife (ATCW). These kangaroos and wallabies may cause damage to fences and compete with domestic livestock for pasture. Fence damage may be alleviated by non-lethal means in some instances, but where macropod numbers are high, and there is significant competition for pasture, an ATCW may be issued to enable a reduction in kangaroo or wallaby numbers, and hence competition for pasture.

### Objective 15 – Minimise the loss to agriculture caused by wildlife species

Strategic Action	Key Responsibility	Partners	Timeframes
32. Implement community education programs where native wildlife present problems, and/or issue an Authority to Control Wildlife permit with a view to protecting agricultural production or biodiversity values while not threatening the survival of the species causing the damage.	NRE	Agriculture service industry, municipalities, landowners, Landcare, industry and community groups	Ongoing
33. Investigate management techniques designed to minimise damage caused by native species.	NRE	Agriculture service industry, Landcare, industry and community groups	Ongoing



## 10. Monitoring & Reporting

Pest management is continually confronted with issues of invasiveness, resistance to treatment, variations in climatic conditions and changing social, economic and environmental values. Monitoring of outcomes of various programs is therefore crucial if a strategic approach is to be taken to program management. Monitoring processes and practices must therefore be clear, credible, timely and efficient in resource use for the outcomes required.

Currently monitoring of pest management activities is carried out by:

- CMAs and the VCMC as part of their statutory responsibilities under the *CaLP Act 1994*; and
- NRE to meet regional and State economic and environmental requirements.

The challenge is to ensure that pest management monitoring activities include the participation of all State and local government agencies as well as the community and that all such activity is adequately coordinated to provide an efficient and standardised system of reporting progress towards the Framework's goal.

Considerable effort has been invested by NRE to develop a user-friendly pest management monitoring and reporting system. As a result, a new statewide Integrated Pest Management System (IPMS) has been developed for use within NRE to record pest management activities primarily on private land. The continued development of IPMS to provide Geographic Information System (GIS) and map output, to enable wide and easy access (with suitable checks for input data quality), and for standard conversion procedures for other common user systems will be a very high priority for NRE.

However a number of different information technology systems are used for data storage, including simple spread sheets, integrated local government GIS, and purpose-made systems such as EIS (Environmental Information System) used by Parks Victoria.

There is a need to establish minimum standards protocols, and to systematically transfer and aggregate quality data on pest occurrence from all sources onto the IPMS. This will ensure that information on the total effort by NRE and others, and progress on pest management is available. In addition, the further development of the IPMS is required to enable inputs and access from relevant groups or individuals external to NRE.

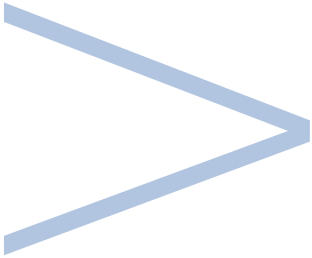
On a statewide basis, the VPMF recognises that in addition to the ongoing monitoring and control of existing pests, there needs to be a mechanism to handle pest reports on highly invasive existing pests and new and emerging pests. The concept of a 'weed alert' plan is currently being developed by NRE using a network of local collectors and specifically identified regional weed officers. Where pests new to Victoria are in question, designated research staff with access to interstate and international information should take a leading role in any 'pest alert' team.

CMAAs will need to report annually on the regional occurrence, status and condition of priority pests identified in Regional Catchment Strategies and Action Plans. In particular they should report on the status of all Regionally Prohibited and Regionally Controlled Weeds with more detailed reports on those subject to a program of action. These detailed reports should provide a thorough review of the effectiveness of the program, including information on public expenditure on both private and public land. Specific reports of new and emerging weeds should also be produced. In relation to established pest animals, CMAAs should report annually on outcomes of all programs carried out in their region, including those on public land.

Annual reporting by the Victorian Catchment Management Council should provide a picture of the current major pest programs, any new and emerging pests in the State, dramatic changes in pest status and the outcomes from pest management activities. It will rely heavily on NRE and CMA sources of information for these reports, supplemented by information from other sources.

*Objective 16 – Ensure effective monitoring and reporting*

Strategic Action	Key Responsibility	Partners	Timeframes
34. Develop 'minimum standards' monitoring and reporting protocols, and systematically transfer and aggregate quality data on pest occurrences from all sources onto the IPMS.	NRE	CMAAs	June 2003 and ongoing
35. Develop IPMS to provide GIS and map output and standard conversion procedures for other common user systems to enable wider and easier access by stakeholders and the community.	NRE	CMAAs, Parks Victoria, Agriculture service industry, municipalities, landowners, Landcare, industry and community groups	December 2003 and ongoing
36. Annual reports to the Minister will detail progress towards achieving regional and statewide pest management outcomes on both private and public land.	CMAAs, VCMC	NRE, Parks Victoria	Ongoing
37. Formally establish the Weeds sub-committee of the VCMC under the <i>Catchment and Land Protection Act 1994</i> , and report annually to the Minister on key weed issues.	NRE, VCMC	CMAAs	December 2002 and ongoing



## 11. Further Reading

Agricultural and Resource Management Council of Australia and New Zealand, Australian and New Zealand Environment and Conservation Council and Forestry Ministers (1997). *The National Weeds Strategy: A Strategic Approach to Weed Problems of National Significance*. Canberra: Commonwealth of Australia

BDA Group (2000). *Review of Weed Priorities in Victoria*. Unpublished document

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Environment and Natural Resources Committee, Parliament of Victoria (1998). *Report on Weeds in Victoria*. Melbourne: Government Printer

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