



Victorian Pest Management

A Framework for Action

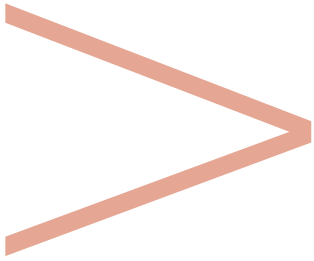
Feral Pig and Feral Goat Management Strategy

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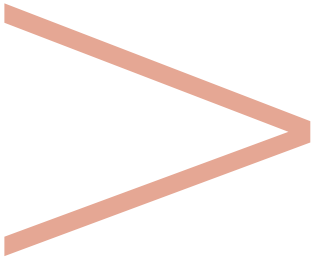
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Feral Pig and Feral Goat Management Strategy

Reasons for Government investment in feral pig and feral goat management

Feral pigs and feral goats are found across Victoria, mainly on public land and to a limited extent on private land. There is evidence that feral goats, through competition and land degradation, and feral pigs, through habitat degradation and predatory feeding, are threatening biodiversity and agricultural values. Feral pig and feral goat management is a community issue as their effective management directly benefits the whole community.

Scope of the feral pig and feral goat management strategy

The approaches described in this Strategy are consistent with the aims and outcomes of the Victorian Pest Management – A Framework for Action (VPMF) and deal with feral pig and feral goat management in Victoria. Feral pig and feral goat management is principally the responsibility of each land and waterway manager. The Government's role in feral pig and feral goat management includes the provision of an appropriate legislative and policy framework. The Government will primarily contribute to feral pig and feral goat management in situations where that action results in public benefit, and will provide funding in accordance with agreed shared investment guidelines.

Goal

Minimise the impact of feral pigs and feral goats on environmental, economic and community values through the implementation of a strategic approach to their management that is supported by the community and contributes to the protection of biodiversity and production outcomes of regional and statewide strategies.

Aim

To protect biodiversity and primary production, through:

- Mapping the extent, and assessing the impact, of feral pigs and feral goats;
- Promoting and implementing an integrated, coordinated and cooperative approach to feral pig and feral goat management within catchments and across Victoria regardless of land tenure, through effective partnerships;
- Supporting catchment-based strategies for feral pig and feral goat management where they are an agreed community problem; and
- Implementing consistent monitoring processes to ensure the effectiveness of projects.

Implementation of the Strategy will effectively coordinate strategic statewide feral pig and feral goat management across all land tenures in a way that:

- Creates effective long term partnerships with the community so that feral pig and feral goat management priorities are clear and reflected in Regional Action Plans;
- Improves community awareness of the problem and ensures skilled and effective community participation in management activities;
- Implements best practice feral pig and feral goat management based on the appropriate application of research findings, project monitoring and formal reviews; and
- Ensures that all land managers are aware of their duty of care to land and water resources.

Stakeholders in managing feral pigs and feral goats

Government and community stakeholders in feral pig and feral goat management include:

- State Government; The Department of Natural Resources and Environment (NRE), Parks Victoria;
- CMAs and the Victorian Catchment Management Council (VCMC);
- Vertebrate Pest Committee (the lead committee providing technical and policy advice on matters related to the prevention and management of vertebrate pests to governments throughout Australia and New Zealand);
- Industry groups such as the Victorian Farmers Federation, animal welfare groups and conservation groups;
- Private landholders (including companies, corporations and landcare groups); and
- Interstate vertebrate pest management authorities/government institutes.

The roles of the key agencies that are involved in feral pig and feral goat management are set out below.

Department of Natural Resources and Environment

NRE is the main State Government department responsible for the administration and management of Victoria's resources and public land and waters. NRE has policy interpretation and legislative responsibility for feral pig and feral goat management and coordinates the implementation of the Government's feral pig and feral goat management programs. These programs are delivered through the direct management of public lands and through the provision of behavioural change programs (extension advice) for private land programs. NRE is also responsible for delivering cost-effective advisory, educational and regulatory services in sustainable land and water management and agricultural industry development.

Public land managers; within NRE- Forests Division, Parks Flora and Fauna Division 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 Parks Victoria. Public Land Management is carried out in accordance with the Victorian Biodiversity Strategy, which is a whole-of-government document for the Victorian community with NRE being the lead agency for its implementation.

Victorian Catchment Management Council

The VCMC was established under the *Catchment and Land Protection Act*. 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 the CMAs 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 in Victoria. CMAs have a responsibility to implement their regional Action Plans and inform their regional communities about the agreed programs, priorities and funding for feral pig and feral goat management. CMAs guide the implementation of catchment priorities through advice to the State Government and Regional Assessment Panels on regional priorities for funding.

Public land management

Forest Management Plans and Park Management Plans are the principle strategic documents for forest land, and land managed by Parks Victoria, and incorporate pest management as a component. Priority feral pig and feral goat management in the Plans will be primarily directed to the protection of significant natural values of the lands and to meeting community 'good neighbour' expectations.

Where feral pig and feral goat management on public land primarily benefits the land itself, such as biodiversity conservation and the protection of the natural resource base, management is the core responsibility of the relevant public land manager. Each public land manager will develop feral pig and feral goat management programs based on the strategic directions detailed in the VPMF, in particular Chapter 3 – Pest Management Principles and Chapter 7 Public Land Management. Funding for these programs will be allocated from the land manager's annual budget and regional programs included in the whole of catchment coordinated reporting process to be undertaken by CMAs.

Where feral pig and feral goat management on public land also benefits adjoining private land, this management will be the responsibility of the relevant public land manager and met through the Good Neighbour Program (GNP). The GNP is managed by NRE to address damage caused to the community by pests originating on adjoining public land.

Victorian Legislation

The principal legislation relating to the management of feral pigs and feral goats in Victoria is the *Catchment and Land Protection Act*, which is administered by NRE. Under this legislation feral pigs and feral goats are each declared as an Established Pest Animal and land managers have the responsibility to prevent the spread of, and as far as possible eradicate, feral pigs and feral goats from their land. The *National Parks Act* and the *Flora and Fauna Guarantee Act* are also relevant in feral pig and feral goat management.

Strategic approach to feral pig and feral goat management in Victoria

To be effective, feral pig and feral goat management needs to involve the close integration of research with land managers working together to assess, manage and monitor the feral pig and feral goat problem.

Strategy 1 Mapping and impact assessment of feral pigs and feral goats

There is no statewide information available on where feral pigs and feral goats live in Victoria and the impacts they cause. Collecting this information is the first priority. Sporting shooting clubs and field and game organisations are an invaluable source of information and should be engaged to assist in the information collection.

Objective 1 – Assess the threat

Strategic Action	Key Responsibility	Partners	Timeframes
1. Undertake a statewide mapping process to determine the distribution of feral pigs and feral goats and to ascertain the damage they cause to biodiversity values and production.	NRE, Parks Victoria	Hunting organisations, individuals and community groups	December 2003

Strategy 2 Improving the process of setting priorities and decision making in feral pig and feral goat management

The most cost-effective mechanism to deal with feral pigs and feral goats is either to prevent their establishment, or to intervene early when they have been detected to ensure new populations do not become established and spread into other valued areas.

Following the completion of Strategy 1, the primary focus of NRE investment in regions where feral pigs and feral goats are an agreed community concern will be based on detection and early intervention and to:

- Coordinate management action between public and private land managers with shared problems; and
- Contribute to the protection of biodiversity values and natural resources.

Agricultural protection

Principles for Government funding of private land pest management are detailed in the VPMF. In catchments where feral pigs and/or feral goats are an agreed community concern, NRE investment on private lands will be used to:

- Maximise public or community benefit from feral pig and feral goat management by private landholders.
- Fulfil the responsibility of public land managers to act as 'Good Neighbours' in addressing the Regional Catchment Strategies and action plans of the CMAs.

Where such programs also benefit biodiversity on private and/or public lands, a higher level of Government investment may be warranted.

Biodiversity protection/threat abatement planning

Feral pig and feral goat 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. Feral pig and feral goat management is a component of effective stewardship of public land and is an integral part of the sustainable and integrated land management in Victoria's catchments.

The above approach will be implemented across Victoria according to the risk posed by feral pig and feral goats to biodiversity and natural resources, and the severity of that threat relative to other threats, consistent with priorities of the Victorian Biodiversity Strategy. In accordance with the Biodiversity Strategy this approach will be based on the results of Bioregional Network Analyses and decision support tools that have been used to prioritise risk and appropriate responses.

A bioregion is an area defined primarily by biological and geographic criteria and is big enough to take into account the complex relationships between species and landscapes, as the basis for maintaining the integrity of plant and animal communities, and small enough to group issues together and concentrate on achievable tasks. Bioregional Networks provide the framework for bioregional planning and reporting and consist of clusters of neighbouring bioregions across Victoria that involve all major biodiversity asset managers (Parks Victoria, NRE, CMAs, local government) with their role being to share detailed information on the conservation of biodiversity assets.

Objective 2 – Improve the process of making decisions in feral pig and feral goat management

Strategic Action	Key Responsibility	Partners	Timeframes
2. A priority setting model will be:	NRE	NRE VCMC, CMAs, Parks Victoria, industry groups and organisations	Draft process June 2005 and ongoing
<ul style="list-style-type: none"> i developed that considers economic, environmental and social impact of feral pig and feral goats and priorities under the regional planning process; and ii applied at a state and regional level, to determine priorities for action on both public and private lands. 	NRE	Parks Victoria, CMAs municipalities, landowners, Landcare, industry and community groups	December 2005 and ongoing

Strategy 3 Strategic management programs using regional Feral Pig and Feral Goat Action Plans

Action Plans provide the framework for Government and community investment in pest management. In regions where feral pigs and/or feral goats are an agreed community concern, Action Plans will be developed by CMAs to provide the Government and the community with a framework for tackling the problem, and to foster community ownership of the problem. NRE will support the implementation of the Plans through targeted extension and support programs. CMAs will inform the community of the actions and aims outlined in the Plans to ensure expectations are met.

In addition, effective responses to emerging disease outbreaks require emergency disease planning at a national, state and territory and district level and the involvement of both animal and health authorities and emergency management organisations. The basis for this planning is contained in the Australian Veterinary Emergency Plan (AUSVETPLAN). Feral pigs, in this instance, would be a prime vector of Foot-and-mouth disease if it was introduced into Australia. A specific technical response plan for this disease is included under the AUSVETPLAN.

Objective 3 – Ensure strategic planning

Strategic Action	Key Responsibility	Partners	Timeframes
3. Develop, implement and support feral pig and/or feral goat Action Plans in catchments where they are an agreed community concern based on the priority setting model.	CMAs, Parks Victoria	NRE, municipalities, landowners, Landcare, industry and community groups	December 2005 and ongoing
4. Advise the community as to the desired actions and outcomes of the Action Plans.	CMAs	NRE, Parks Victoria, municipalities, landowners, Landcare, industry and community groups	December 2005 and ongoing
5. Maintain linkages to the Australian Veterinary Emergency Plan (AUSVETPLAN)	NRE	NRE, Parks Victoria, municipalities, landowners, Landcare, industry and community groups	Ongoing

Strategy 4 Build partnerships to ensure effective statewide and regional coordination

Effective feral pig and feral goat 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 this Strategy. NRE has successfully established partnerships with State and local government agencies, industry groups, CMAs and the community in general. However, the management of feral pigs and feral goats at a State and regional level requires a strategic and coordinated approach. To ensure this occurs, coordination and reporting relationships will be established across Government, NRE and catchments.

Objective 4 – Ensure effective coordination and community involvement

Strategic Action	Key Responsibility	Partners	Timeframes
6. Provide a coordinated and strategic feral pig and/or feral goat management focus across:			
i whole of government and NRE - who will ensure that it is part of a consistent and agreed statewide pest management focus;	NRE	VCMC, other Government agencies and Parks Victoria	June 2003 and ongoing
ii the Good Neighbour Program - by using the existing CMA Regional Assessment Panel to consider proposed projects for funding on the private/public land interface; and	CMAs	NRE, Parks Victoria, municipalities, landowners, Landcare, industry and community groups	June 2003 and ongoing
iii each CMA – who will provide effective communication and a 'whole-of-catchment' reporting process that ensures feral pig and/or feral goat issues are prioritised and managed on all lands as part of a coordinated pest management program for the region.	CMAs	NRE, Parks Victoria, municipalities, landowners, Landcare, industry and community groups	June 2004 and ongoing

Strategy 5 Best practice feral goat and feral pig management

All feral pig and goat management techniques will conform to established 'best practice' standards and contribute to the overall objective of protecting biodiversity, natural resources and livestock. In addition, management programs will take into consideration techniques that do not have adverse on-site and off-site impacts and are humane.

Regardless of the technique used, any program needs to be evaluated to ensure it meets appropriate best practice pest management, i.e. every feral pig and feral goat management program should be appropriately planned and coordinated using the most effective, safe and humane methods available and which are aimed at long-term management. Successful feral pig and feral goat management programs require integrated action so that they are part of the holistic management of land at the state, regional and local level.

Objective 5 – Ensure best practice feral pig and feral goat management

Strategic Action	Key Responsibility	Partners	Timeframes
7. Focus all feral pig and feral goat management techniques on the overall objective of limiting damage to biodiversity and agricultural production.	NRE, Parks Victoria	CMAs, industry groups and organisations, including animal welfare, municipalities, landowners, Landcare and community groups,	June 2003 and ongoing
8. Best practice feral pig and feral goat management will be; <ul style="list-style-type: none"> i through appropriately planned and coordinated programs using the most effective safe and humane methods available; ii aimed at maximising protection to biodiversity and productivity protection; iii conducted at a scale sufficient to achieve ongoing and sustainable results; iv integrated at state, regional and local level; v sufficiently resourced to apply the adaptive management approach; and vi communicated to public and private land managers. 	NRE, Parks Victoria	CMAs, industry groups and organisations, including animal welfare, VFF, municipalities, landowners, Landcare and community groups	Ongoing

Strategy 6 Targeted research for best practice feral pig and feral goat management

Research is a key for building the capacity for land managers to effect change. The knowledge and understanding that comes from feral pig and feral goat research allows managers to develop appropriate management responses. Feral pig and feral goat research in general must 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. Research will play a critical role in developing best practice feral pig and feral goat management that is targeted, readily applied to the field and made available to the community. This includes analysing existing management techniques and practices as well as developing new and/or improved management options.

Objective 6 – Ensure effective targeting of research

Strategic Action	Key Responsibility	Partners	Timeframes
<p>9. Align priorities for any research conducted to addressing knowledge gaps identified in key documents, including Regional Action Plans and threat abatement Action Statements, and targeted at long-term solutions through:</p> <ul style="list-style-type: none"> i assessment of existing techniques for best practice feral pig and feral goat management; ii development of safe, effective and humane feral pig and feral goat management techniques; and iii making a summary of the research findings available to the community. 	NRE	CMAAs, Parks Victoria, industry groups and organisations, including animal welfare, municipalities, landowners, Landcare and community groups	June 2004 and ongoing

Strategy 7 Effective monitoring, reporting and evaluation

Where feral pigs and/or feral goats are a recognised problem, the monitoring and reporting of respective programs to protect biodiversity on public land will follow established processes such as bioregional planning and the Environmental Information System (EIS) of Parks Victoria. A statewide evaluation process will be developed and implemented by NRE for public land feral pig and feral goat management programs funded through the appropriate program. NRE will use these results as the basis for future funding decisions. The Integrated Pest Management System (IPMS) will be used to record management programs undertaken on private lands.

Objective 7 – Ensure effective monitoring, evaluation and reporting

Strategic Action	Key Responsibility	Partners	Timeframes
10. Develop "minimum standards" monitoring and reporting protocols and systematically transfer and aggregate quality data on pest occurrences from all sources, including EIS, onto the IPMS.	NRE	VCMC, CMAAs, Parks Victoria, industry groups and organisations	June 2003
11. 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	VCMC, NRE, VFF, municipalities, landowners, Landcare, industry and community groups	December 2003

Performance Indicators

1. Accurate information on the distribution, density and impact of feral pigs and feral goats and actions taken.
2. Measurable increase in the habitat quality and viability of natural ecosystems targeted for feral goat and feral pig management.
3. Timely response to all reports of new infestations with the aim to assess, contain and reduce them to acceptable low densities.

