



Regional Pest Management Strategy – Operational Plan 2016/17





greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Regional Pest Management Strategy 2002-2022

Operational Plan 2016/17

Biosecurity Department

COVER PHOTOGRAPHS:
Bush remnants in South Wairarapa
Thistle beetle
Apple of Sodom
Ferret: DOC
Possum: Nga Manu Images

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1. Introduction

1.1 Background

Greater Wellington Regional Council (GWRC) biosecurity activities involve the control of unwanted plants and animals for environmental, economic and social reasons:

- **Environmental:** Many of New Zealand's native plants and animals cannot co-exist with introduced species. In areas of high biodiversity value, pest plants and pest animals need to be controlled to protect vulnerable ecosystems
- **Economic:** The impact of pest plants and pest animals leads to considerable economic loss in many of New Zealand's primary industries. Pest management is essential to the success of industries such as agriculture
- **Social:** Pest organisms create a range of social problems within our communities. Pest plants and pest animals cause a considerable nuisance in many aspects of rural and urban life, inhibiting the ability of people to enjoy their property, lifestyle and wellbeing.

The Greater Wellington Regional Council Pest Management Strategy 2002 – 2022 (the strategy) was prepared in accordance with the Biosecurity Act 1993. The original strategy was approved by GWRC on 17 September 2002. The five year review of the current strategy was adopted by resolution on 9 March 2009 and became operative on 12 June 2009. The current strategy is under review following the release of the National Policy Direction (NPD) by the Ministry for Primary Industries. The reviewed document will be known as the GWRC Regional Pest Management Plan (RPMP).

1.2 Linkage to the Regional Pest Management Strategy

This Operational Plan has been prepared in accordance with section 100B of the Biosecurity Act 1993. The plan identifies and outlines the nature and scope of activities GWRC intends to undertake in the implementation of its Regional Pest Management Strategy (RPMS) for the financial year 2016/17.

The strategy contains objectives specific to individual pests and outlines the means by which GWRC, as the Management Agency, will achieve those objectives.

The strategy has clearly defined rules to be met by all land occupiers. GWRC has responsibility to ensure land occupiers are aware of, and meet, their obligations for pest management on their properties. GWRC can also undertake pest control operations where there is recognised regional benefit.

1.3 Implementation

The purpose of the plan is to implement the RPMS for the Wellington region. The principal objectives are to minimise the actual and potential adverse and unintended effects of pests on the environment, the economy and the community, and maximise the effectiveness of individual pest plant and pest animal management via a regionally coordinated response.

1.4 Review

The plan will be reviewed and reported on annually. The plan may be amended to ensure that the objectives of the strategy will be achieved within its terms. Section 100G of the Biosecurity Act allows GWRC to make minor changes to the strategy, provided that it is satisfied that the changes will not have any significant effects on the rights and obligations of any persons.

1.5 Integration with Annual Plan

As far as practicable, the Operational Plan has been integrated with GWRC's Annual Plan. The Annual Plan sets the overall priorities and work programmes for the organisation and provides an overview of related pest management activities for the 2016/17 year. Implementation costs are included in the Annual Plan.

1.6 Integration with GWRC biodiversity activities

GWRC has responsibilities to manage biodiversity under the Resource Management Act 1991. Various council programmes that contribute to the management of biodiversity have been consolidated into the Biodiversity Department. Biodiversity related activities and the role of the Biodiversity Department are guided by the Greater Wellington Biodiversity Strategy 2011-21.

The management of high value biodiversity areas across the region is coordinated by the Biodiversity Department. Pest plant and pest animal control is a key method for managing native biodiversity, requiring ongoing investment of council resources, with a significant amount allocated to the Key Native Ecosystems programme. This programme focuses on managing the areas of highest biodiversity value, predominately through ongoing coordinated pest control for sites. This work is complemented by other efforts such as fencing to exclude farm stock and advocating for legal protection.

Site-led pest plant and pest animal programmes for biodiversity or ecological benefit are largely funded by the Biodiversity Department and implemented by the Biosecurity Department as part of the Key Native Ecosystem Programme.

1.7 Areas of responsibility

This plan and the strategy are based on the following core areas of GWRC's responsibility:

- Regulation (standards and enforcement)**

Standards, rules and restrictions are set and compliance enforced with penalties, when and where necessary.

- Inspection**

Regular property inspections ensure that rules and regulations are being met and changes in pest densities are determined over time.

- **Monitoring**

GWRC undertakes monitoring for pests in the region to determine their presence, distribution and effects, and to measure the extent to which the objectives of the strategy are being achieved.

- **Direct control**

GWRC funds and undertakes pest control in some circumstances as a service for regional benefit.

- **Advice and education**

Free advice is given to raise awareness of pest problems and to provide land occupiers with the information to control their own pests.

- **Community initiatives**

Guidance and support is provided for community driven initiatives to control pests.

- **Cost recovery**

A full cost recovery operational service is available for pest control.

- **Biological control**

As approved biological control agents become available, GWRC may elect to utilise them. Biocontrol is currently a key tool in the management of rabbits and various pest plant species.

1.8 How the pest species are decided

A cost-benefit analysis (CBA) is undertaken for all species proposed for the strategy. This process decides what control, if any, is to be undertaken and what level of management is needed for the species. The CBA works in conjunction with the infestation curve, which designates the different management policies.

Expanded infestation curve for the proposed RPMS:

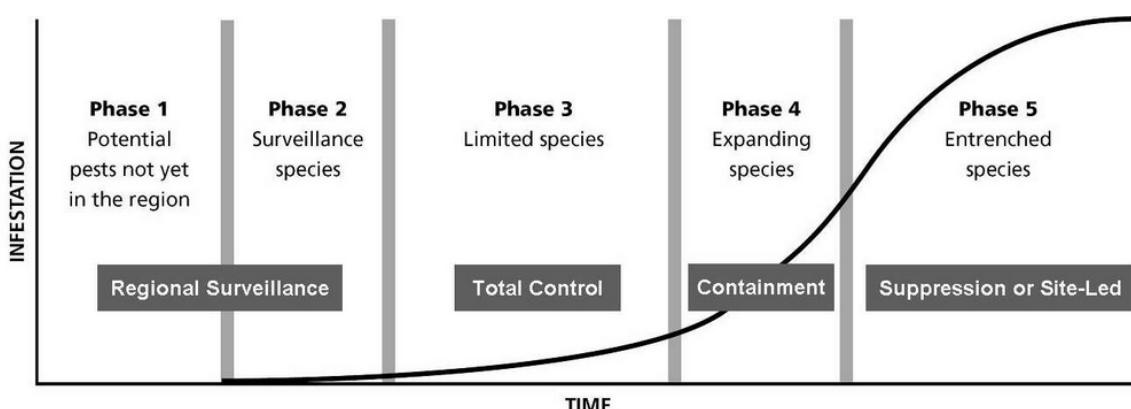


Figure 1: Phases of a pest through time in relation to its appropriate management. Adapted from Greater Wellington's Regional Pest Management Strategy, published April 2003.

Infestation phase	Phase characteristics	Management policies
Phase 1	Potential pest not currently in the region	Regional Surveillance
Phase 2	Recent arrival limited in distribution	Regional Surveillance
Phase 3	Limited in distribution and density	Total Control
Phase 4	Established but have not reached full distribution	Containment
Phase 5	Widespread or entrenched in most or all available habitat	Suppression or Site-Led

1.9 Species in the Operational Plan

The species in the plan are generally collated by category, but individual species or projects with a considerable investment or public interest are listed separately to provide greater transparency of expenditure.

1.10 Pest Control Methods

Greater Wellington Regional Council uses a range of methods and tools to control pest plants and pest animals within the region. All control operations are undertaken by trained staff, contractors or volunteers using industry accepted best practice techniques. This methodology considers environmental and humane factors alongside cost-effectiveness and practicality. Chemical based pest control methods are utilised only when non-chemical methods are impractical or inadequate. All GWRC control operations aim to minimise the amount of chemical used in the natural environment. For a full list of the pesticides used by GWRC refer to Appendix 1.

2. Pest Animals

2.1 Performance targets and measures

2.1.1 Surveillance species

Aim: To prevent the establishment or minimise the impact, and prevent the further spread, of animal surveillance species in the region at a cost of \$40,000

Objective	Means of Achievement
<ol style="list-style-type: none">1. Monitor for the presence of Surveillance species within the Wellington region.2. Monitor and manage those Surveillance species already present in the Wellington region.	<ul style="list-style-type: none">• Provide information and publicity to enhance public awareness of Surveillance species.• Record and report any incidences of Surveillance species in the region.• Investigate the feasibility of eradication if a Surveillance species is detected within the region.

2.1.2 Total Control species – rooks

Aim: Total control of rooks in the Wellington region at a cost of \$99,000

Objective	Means of Achievement
<ol style="list-style-type: none">1. Manage rooks to levels that protect economic values in the region.2. Achieve total control of rooks within 25 years in the Wellington region.	<ul style="list-style-type: none">• Undertake direct control by service delivery where rooks are known to exist.• Survey rook populations annually in areas where they are known to exist, and where new infestations are reported.• Support appropriate research initiatives, including biological control should it become available.• Ensure compliance with the strategy rules in order to achieve the strategy objectives.• Encourage Horizons and Hawke's Bay Regional Councils to actively pursue management of rooks within their regions that complements the GWRC Total Control programme.• Annually inspect pet shops and rook keepers to prevent sale and/or breeding of rooks.

2.1.3 Suppression species – rabbits

Aim: To minimise the adverse impacts of feral rabbits at a cost of \$176,000

Objective	Means of Achievement
<p>1. Ensure that no area in the region exceeds Level 5 on the Modified McLean Scale at any one time.</p> <p>Refer to Appendix 2 for the Modified McLean Scale of rabbit infestation.</p>	<ul style="list-style-type: none">• Undertake direct control by service delivery to control rabbits on riverbeds, esplanades or similar public commons to ensure that rabbits do not exceed Level 5 of the Modified McLean Scale.• Ensure compliance with the strategy rules in order to achieve the strategy's objectives.• Survey land in high to extreme rabbit prone areas to determine the extent of rabbit infestation.• Make occupiers aware of their responsibilities for rabbit control.• Provide information and publicity to enhance public awareness of the threat rabbits pose to the region.• Release biological control agents for the control of feral rabbits when appropriate.• Support research initiatives including biological control.• Annually inspect pet shops to prevent the sale of feral rabbits.

2.1.4 Site-Led species – human health - magpies

Aim: To manage magpies to minimise adverse human health and environmental impacts in the Wellington region at a cost of \$55,000

Objective	Means of Achievement
<p>1. Respond to reports of magpies attacking members of the public within 10 working days.</p> <p>2. Supply traps to occupiers wishing to undertake their own control.</p> <p>3. Establish representative population trend monitoring sites for magpies.</p>	<ul style="list-style-type: none">• Undertake direct control by service delivery of magpies within 10 working days where there is known to be a threat of injury to members of the public, or complaint(s) are made to that effect.• Respond to landowners wanting to undertake magpie control within 15 working days of receiving a request for information and/or assistance.• Provide advice, education and assistance to occupiers wanting to undertake magpie control.• Support appropriate research initiatives into magpie impacts.• Annually inspect pet shops to prevent the sale of magpies.

2.1.5 Site-Led species – human health - wasps

Aim: To minimise the adverse human health and environmental impacts of wasps at selected sites at a cost of \$4000

Objective	Means of Achievement
1. Reduce the anti-social and adverse environmental impacts of common and German wasps in the Wellington region.	<ul style="list-style-type: none"> Provide advice and education to occupiers wanting to undertake wasp control. Provide a referral service to landowners/occupiers who require wasp control. Support research initiatives into the human health impact of wasps in the Wellington region.

2.1.6 Site-Led – biodiversity – possum

Aim: To minimise the adverse impacts of possums in areas of ecological significance and maintain accrued biodiversity and economic gains in the Wellington region at a cost of \$121,000

Objective	Means of Achievement
1. Address the adverse impacts of possums in selected areas for catchment functions, biodiversity and economic prosperity. 2. Minimise the adverse environmental impact of possums in areas of ecological significance in the region.	<ul style="list-style-type: none"> Undertake direct control by service delivery in sites of ecological significance in agreement with the landowner/occupier. Support the establishment of new possum control programmes, in collaboration with landowners, in areas which have historically received bovine Tb vector control and now meet the Animal Health Board criteria to be declared Tb free. Provide information and publicity to enhance public awareness of the threat possums pose to the region. Provide advice, education and assistance to occupiers wanting to undertake possum control. Provide a referral or cost recovery service to landowners/occupiers who require possum control. Support research initiatives including biological control. Annually inspect pet shops and other outlets to prevent the sale of possums.

Explanatory note:

- The cost of possum control associated with this Site-Led – biodiversity – possum category will only be for possum control conducted outside the Key Native Ecosystem (KNE) programme.
- This Operational Plan has a Site-Led category for KNEs, Reserves and Forest Health with the aim of protecting indigenous biodiversity in a comprehensive range of KNEs throughout the Wellington region.
- Possums, together with rats and mustelids are the principal target species in KNE management areas. This holistic management regime through multi species control makes it impracticable to separate and allocate specific costs to specific pests.

2.1.7 Site-Led – Regional Possum Predator Control Programme

Aim: To minimise the adverse impacts of possums in areas declared Bovine Tb free at a cost of \$1,290,000

Objective	Means of Achievement
1. Address the adverse impacts of possums in Bovine Tb free areas for catchment functions, biodiversity and economic prosperity.	<ul style="list-style-type: none">• Maintain a possum residual trap catch of 5% or lower across 75,000 ha of the Wellington region.

2.1.8 Site-Led – Key Native Ecosystems, Reserves and Forest Health

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems and Reserves at a cost of \$1,696,000

Objective	Means of Achievement
1. Achieve a measurable improvement in the ecological health and diversity of Key Native Ecosystems (KNEs) and reserve areas using a range of suitable indicators.	<ul style="list-style-type: none">• Ensure KNEs are legally protected into perpetuity.• Establish and implement integrated pest management plans for all KNEs and selected reserves.• Undertake direct control by service delivery of pests identified in the management plan for KNEs and reserves.• Facilitate the involvement of community groups where appropriate.• Coordinate site management with other biodiversity initiatives where possible.• Use biological control agents where appropriate, and support relevant biological control research initiatives.• Monitor site recovery using a range of ecological indicators.• Manage external pressures that are inconsistent with KNE and reserve management objectives.• Provide public education and advice to foster biodiversity management outside formal KNE and reserve areas.• Maintain holistic management in existing managed KNE and reserve areas.• Where KNEs are identified on Territorial Local Authority land, seek funding from the relevant authority to form financial partnerships.

3. Pest Plants

3.1 Performance targets and measures

3.1.1 Surveillance species

Aim: To determine the distribution and means of control for Regional Surveillance pest plants within the Wellington region at a cost of \$270,000

Objectives	Means of Achievement
<ol style="list-style-type: none">1. Carry out a Regional Surveillance pest plant programme to determine the status of these species within the Wellington region.2. Carry out a trial control programme to ascertain the best method(s) for controlling selected Regional Surveillance pest plants within the region.	<ul style="list-style-type: none">• Identify new sites of Regional Surveillance pest plants by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme.• Undertake a control trial programme on selected Regional Surveillance pest plants within the region.• Undertake training and research to be conversant with the identification and biological characteristics of all Regional Surveillance pest plants.• Provide information and publicity to enhance public awareness of the threat posed by Regional Surveillance pest plants to the region.• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Regional Surveillance pest plants.• Report outcomes of investigations into new incursions or species known to be established in the region.• Use biological control agents where appropriate, and support relevant biological control research initiatives.

3.1.2 Total Control species

Aim: To control all Total Control species within the Wellington region at a cost of \$363,000

Objective	Means of Achievement
<ol style="list-style-type: none">1. Control all Total Control species at all known sites on an annual basis.	<ul style="list-style-type: none">• On an annual basis undertake direct control by service delivery of all Total Control species at all known sites within the region.• Provide information and publicity to enhance public awareness of the threat posed by Total Control species to the region.• Identify new sites of Total Control species through incidental reports by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme delimiting known infestation sites.• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Total Control species.• Use biological control agents where appropriate, and support relevant biological control research initiatives.

3.1.3 Containment species

Aim: To control all Containment species outside the Containment zones within the Wellington region at a cost of \$179,000

Objective	Means of Achievement
1. Control all Containment species at known sites outside the Containment zones on an annual basis subject to successful control trials.	<ul style="list-style-type: none">• Undertake direct control by service delivery of Containment species outside the Containment zone within the region on an annual basis.• Provide information and publicity to enhance public awareness of the threat posed by the Containment species to the region.• Identify new sites of Containment species outside the Containment zones through incidental reports by GWRC Biosecurity staff, the public, or through the Regional Surveillance pest plant programme.• Annually inspect all plant, animal outlets and markets in the region to prevent the sale and/or propagation of the Containment species.• Use biological control agents where appropriate, and support relevant biological control research initiatives.

3.1.4 Site-Led - boundary control, suppression and human health species

Aim: To minimise the adverse impacts of Site-Led boundary control species and the risk to human health of species in specific situations throughout the Wellington region at a cost of \$194,000

Objective	Means of Achievement
1. Prevent the spread of Site-Led boundary control species onto properties that are clear, or being cleared of boundary control species. 2. Prevent the spread of Site-Led human health species onto properties that are clear, or being cleared, of human health species.	<ul style="list-style-type: none">• Action complaints received within the parameters of the Regional Pest Management Strategy.• Provide information and publicity to enhance public awareness of the threat posed by Site-Led boundary control and human health species to the region.• Annually inspect all plant outlets and markets within the region to prevent the sale and/or propagation of Site-Led boundary control and human health species.• Use biological control agents where appropriate and support relevant biological control research initiatives.

3.1.5 Site-Led – Key Native Ecosystems, Reserves and Forest Health

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems and Reserves at a cost of \$1,199,000

Objective	Means of Achievement
1. Achieve a measurable improvement in the ecological health and diversity of KNEs and Reserve areas using a range of suitable indicators.	<ul style="list-style-type: none">• Ensure KNEs are legally protected into perpetuity.• Establish and implement integrated pest management plans for all KNEs and selected Reserves.• Undertake direct control by service delivery of pests identified in the management plan for KNEs and Reserves.• Facilitate the involvement of community groups where appropriate.• Coordinate site management with other biodiversity initiatives where possible.• Use biological control agents where appropriate and support relevant biological control research initiatives.• Monitor site recovery using a range of ecological indicators.• Manage external pressures that are inconsistent with KNE and Reserve management objectives.• Provide public education and advice to foster biodiversity management outside formal KNE and Reserve areas.• Maintain holistic management in existing managed KNE and Reserve areas.• Where KNEs are identified on Territorial Local Authority land, seek funding from the relevant authority to form financial partnerships.

4. Indicative funding sources

The table below outlines indicative funding sources:

Revenue Sources	Pest Animals \$	Pest Plants \$	Regional Possum Predator Control \$
General Rate and Levies	1,321,200	1,555,500	756,000
Internal Income	744,300	584,500	424,000
External Revenue	125,500	15,000	
Reserves		50,000	110,000
Total Revenue	2,191,000	2,205,000	1,290,000

5. Implementation report

A report on the Operational Plan and the success or otherwise of its implementation will be prepared no later than five months after conclusion of the financial year. Copies of the report will be made available to the public.

Appendices

Appendix 1

Chemical Controls in use by Greater Wellington Regional Council

Herbicides:

Diaquat (Reglone, Dy-Quat)
Glyphosate 360, 450, 510, 540 (Roundup, Agpro Glyphosate, Cut and Treat Gel)
Haloxyfop-P-Methyl (Gallant Ultra, Agpro Haloxyfop, Ignite)
Imazapyr (Arsenal)
Metsulfuron-Methyl 600 (Escort, Agpro Meturon, Zeal)
Picloram (Tordon Brushkiller, Vigilant Gel)
Triclopyr 600 EC (Grazon, Tordon Brush Killer, Agpro Triclop 600)

Vertebrate Toxic Agents and insecticides:

1080 pellets (RS5, No 7, paste)
Alphachloralose (paste, wheat)
Brodifacoum (Pestoff pellets, Pestoff High Strength, rodent blocks)
Bromadiolone (Contrac blocks)
Cholecalciferol (cereal pellets and Feracol paste)
Coumatetralyl (blocks)
Cyanide (Feratox, paste)
Diphacinone (50D, Ratabate, Ditrac)
DRC 1339 paste (rook nest baiting) and bread dripping baits
Fipronil (Xtinquish ant bait)
Magtoxin (fumigant pellets)
Permethrin (Permex powder)
Pindone (possum pellets, rabbit pellets, liquid concentrate)
Difethialone (rodent paste bait)
Sodium Nitrate (possum and pig bait)
PAAP (stoat control)

Appendix 2

Modified McLean Scale

Scale	Rabbit Infestation
1	No sign seen. No rabbits seen.
2	Very infrequent sign seen. Unlikely to see rabbits.
3	Sign infrequent with faecal heaps more than 10 metres apart. Odd rabbit may be seen.
4	Sign frequent with some faecal heaps more than 5 metres apart, but less than 10 metres apart. Groups of rabbits may be seen.
5	Sign very frequent with faecal heaps less than 5 metres apart in pockets. Rabbits spreading.
6	Sign very frequent with faecal heaps less than 5 metres apart over the whole area. Rabbits may be seen over whole area.
7	Sign very frequent with 2-3 faecal heaps often less than 5 metres apart over the whole area. Rabbits may be seen in large numbers over the whole area.
8	Sign very frequent with 3 or more faecal heaps less than 5 metres apart over the whole area. Rabbits likely to be seen in large numbers over the whole area.

The Greater Wellington Regional Council's purpose is to enrich life in the Wellington Region by building resilient, connected and prosperous communities, protecting and enhancing our natural assets, and inspiring pride in what makes us unique

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