



Greater Wellington - Regional Pest Management Strategy

Operational Plan 2007 - 2008

Quality for Life



greater WELLINGTON
REGIONAL COUNCIL

Biosecurity



Regional Pest Management Strategy 2002 – 2022

Pest Plants and Pest Animals

Operational Plan 2007 - 2008

Biosecurity Department

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1. Introduction

1.1 Background

The Greater Wellington Regional Council Pest Management Strategy 2002 – 2022 was prepared in accordance with the *Biosecurity Act 1993*. The strategy was approved by Greater Wellington on 17 September 2002.

This Operational Plan seeks to implement year six of the strategy and continue to advance the aims and objectives of the strategy. The strategy is currently undergoing the five year review process. The reviewed strategy is proposed to take effect in 2008.

1.2 Linkage to the Regional Pest Management Strategy

This Operational Plan has been prepared in accordance with section 85 of the *Biosecurity Act 1993*. The Plan identifies and outlines the nature and scope of activities Greater Wellington intends to undertake in the implementation of its Regional Pest Management Strategy (the strategy) for the financial year 2007 – 2008.

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

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

1.3 Implementation

The purpose of the Operational Plan is to implement the Regional Pest Management Strategy 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 co-ordinated response.

1.4 Review

The Operational 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 term. The *Biosecurity Amendment Act 1997* allows Greater Wellington to make minor changes to the strategy, provided that it is satisfied that the change will not have any significant effects on the rights and obligations of any persons.

The strategy must be reviewed at least once every five years. Following a review, Greater Wellington may leave the strategy unchanged, or amend or revoke it. The five year review is currently taking place, and the reviewed strategy is proposed to take effect in 2008. The current strategy remains in place until the new strategy is released.

1.5 Integration with Annual Plan

As far as practicable, the Operational Plan has been integrated with Greater Wellington's Annual Plan. The Annual Plan also provides an overview of related pest management activities for the 2007/08 year. Implementation costs are included in the Annual Plan.

1.6 Areas of responsibility

This Plan and the Regional Pest Management Strategy are based on the following core areas of Greater Wellington's responsibility.

- **Regulation (standards and enforcement)**

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

- **Inspection and monitoring**

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

- **Direct control**

Greater Wellington 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**

If approved biological control agents become available, then Greater Wellington may elect to utilise them. Biocontrol is currently a key tool in the management of various pest plants and rabbits.

1.7 Principle Legislation and Policy references

- *Biosecurity Act 1993* and amendments
- Regional Pest Management Strategy 2002 – 2022

1.8 Pest management categories

Pest management policies are dependent on the phase or degree of infestation. Therefore, all pests have been allocated specific pest management categories (refer **Figure 1**). The Infestation Curve is under review, and will appear differently in the 2007/08 strategy.

The invasion pattern of many species tends to follow an 'S-shaped' pattern (**Figure 1**). The important characteristics of the curve are a long tail at the beginning of a species' invasion as the pest establishes itself, a steep rise as the pest finds suitable habitats, and then a flattening off as these habitats reach carrying capacity.

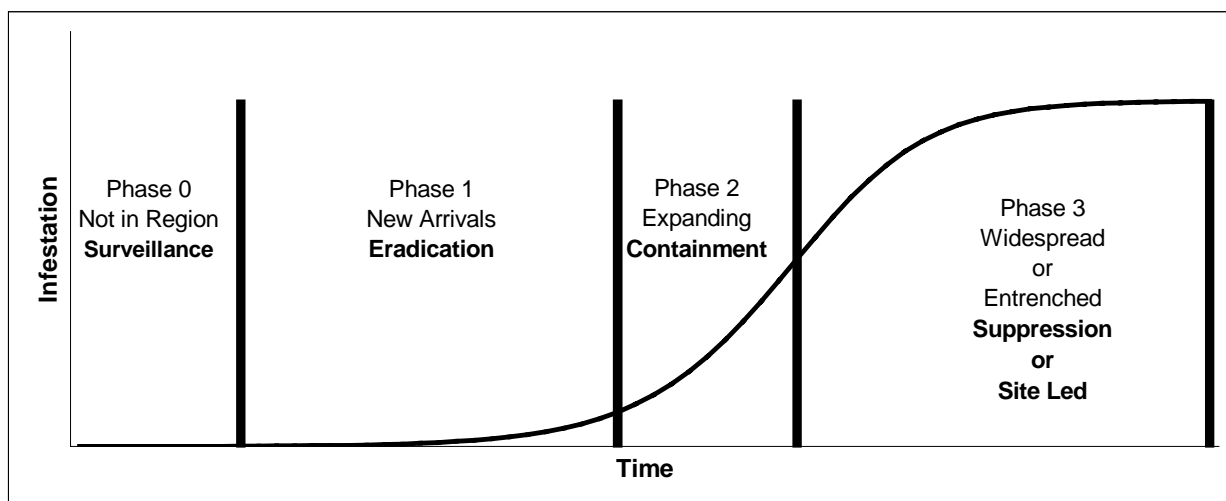


Figure 1. Conceptual phases of a pest through time in relation to its appropriate management. Modified from P. Williams, 1997, Ecology and Management of Invasive Weeds, Department of Conservation.

- **Phase 0 – Surveillance species:**

These are specific species which are currently being considered for possible inclusion in the reviewed Regional Pest Management Strategy. They may not be established in the region but may be present in neighbouring regions. These species are known to be invasive. Regional pest plant surveillance programmes are in place to detect new arrivals.

- **Phase 1 – Recent arrivals limited in distribution:**

These species have been classified as **Eradication** pests. They are of limited distribution and density and have the potential to have serious adverse effects. Every attempt will be made to eradicate these pests.

- **Phase 2 – Expanding in range and density:**

These species have been classified as **Containment** pests. They are established but still have a limited to moderate distribution. Clear areas will be kept clear.

- **Phase 3 – Established in most or all available habitat:**

These species have been classified as either **Suppression** pests or **Site Led** pests.

Suppression pests are widespread and have the ability to spread rapidly over long distances. Eradication or restriction of range is not achievable and the policy is to suppress pest densities to minimise adverse impacts.

Site Led pests are well established throughout the region and it is not cost effective to attempt control on a region wide scale. Therefore, management is focused on specific sites where the pests have the most serious impact and benefits of control are greatest. The **Site Led** category has been divided into three management programmes:

1. Managing environmental pests in important environmental places;
2. Managing pests when and where they affect human health;
3. Managing agricultural pests to mitigate impacts on adjacent properties.

Pest Plants

2. Performance targets and measures

2.1 Surveillance species

Aim: To determine the extent of specific plant species within the Wellington region at a cost of \$52,300

| Objective | Means of Achievement |
|--|---|
| 1. To monitor species at risk sites within the region. | <ul style="list-style-type: none"> • Undertake inspections of all random sample points to determine the presence of these species. • Document all actual and reported sightings of species outside of random sample points. |

2.2 Eradication pest plants

Aim: To eradicate specific pest plants from the Wellington region at a cost of \$575,300

| Objective | Means of Achievement |
|--|---|
| <ol style="list-style-type: none"> 1. Ensure all known infestations of African feather grass, Bathurst bur, Manchurian wild rice and saffron thistle are inspected on a bi-annual basis. 2. Ensure all sites of moth plant, smilax, sweet pea shrub and woolly nightshade are inspected on an annual basis. Inspections on all species are to be undertaken prior to June 2008. 3. Where new infestations are reported, inspections of these infestations will be undertaken as soon as practicable. 4. All known sites of eradication species will be controlled on an annual basis prior to seeding to prevent further spread. | <ul style="list-style-type: none"> • Undertake direct control by service delivery. • Identify new sites of eradication species through incidental reports by Biosecurity Officers, the public or through the regional pest plant surveillance programme. • Annually inspect all plant outlets to ensure eradication species are not being sold. • Provide information and publicity to enhance public awareness of eradication species. |

2.3 Containment pest plants

Aim: To reduce the adverse impacts of specific pest plants within defined areas of the Wellington region at a cost of \$313,800

| Objective | Means of Achievement |
|---|--|
| <ol style="list-style-type: none"> 1. Control all sites of climbing asparagus, Darwin's barberry, evergreen buckthorn, mistflower, nodding thistle outside of the containment zones on an annual basis. 2. Reduce the densities of boneseed outside of the containment zones. 3. Ensure specific species within the containment zones are controlled by occupiers on an annual basis. 4. The aquatic herbicide Endothall, will be used to control hornwort outside of the containment zone. | <ul style="list-style-type: none"> • Undertake direct control by service delivery. • Undertake inspections within containment zones to ensure occupiers control specific species. • Annually inspect all plant outlets to ensure containment species are not being sold. • Provide information and publicity to enhance public awareness of containment species. |

2.4 Suppression pest plants

Aim: To minimise the adverse impacts of specific pest plants throughout the Wellington region at a cost of \$130,800

| Objective | Means of Achievement |
|---|---|
| <ol style="list-style-type: none"> 1. Suppress the density of banana passionfruit, cathedral bells, wild ginger and old man's beard, throughout the region to minimise their adverse impacts. Note: Does not apply to old man's beard in Wellington City (refer Site Led pest plants). | <ul style="list-style-type: none"> • Annually inspect a selection of known infestations throughout the region to determine levels of control by landowners. • Respond to all queries and complaints relating to these species. • Where required, ensure occupier control is undertaken. • Provide information and publicity to enhance public awareness of suppression species. • Where it is considered practical, biological control agents will be used to assist with the management of these species. • Annually inspect all plant outlets to ensure suppression species are not being sold. |

2.5 Site Led boundary pest plants

Aim: To minimise the externality impacts of specific pest plants on land that is clear or being cleared of the pest plant at a cost of \$39,269

| Objective | Means of Achievement |
|---|--|
| <ol style="list-style-type: none">1. Prevent the spread of gorse, ragwort and variegated thistle onto properties that are clear or being cleared of these species.2. Within Wellington City's Territorial Local Authority area, prevent the spread of old man's beard onto properties that are clear or being cleared of this species. | <ul style="list-style-type: none">• Where a complaint has been received from an adjoining occupier, that complaint shall be investigated in accordance with strategy rules.• Where it is considered practical, biological control agents will be used to assist with the management of site led species in these areas. |

Pest Animals

3. Performance targets and measures

3.1 Containment pest animals – rooks

Aim: To manage rooks as a Containment category pest to levels that protect production systems at a cost of \$46,550

| Objective | Means of Achievement |
|---|---|
| <ol style="list-style-type: none"> 1. Have no active breeding rookeries outside the Containment zone (see Appendix 1) by December 2007. 2. Have no more than five breeding rookeries within the Containment zone by December 2007. 3. Annually report the location of known rookeries and number of active nests. 4. Annually report the density of rooks at known sites. | <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 Regional Council to actively pursue management of rooks within their region that complements Greater Wellington's rook containment programme. • Annually inspect pet shops and rook keepers to prevent the sale of rooks. |

3.2 Suppression pest animals – rabbits

Aim: To minimise the adverse impacts of feral rabbits throughout the region at a cost of \$84,525

| 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>(See 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 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. |

3.3 Site Led pest animals – magpies

Aim: To manage magpies to minimise adverse environmental and human health impacts in the Wellington region at a cost of \$36,750

| Objective | Means of Achievement |
|---|--|
| <ol style="list-style-type: none"> 1. Upon receiving complaint of magpies attacking members of the public, dispose of those magpies within 10 working days. 2. Identify conservation impacts of magpies on native fauna by supporting research initiatives. 3. Establish representative population trend monitoring sites for magpies. | <ul style="list-style-type: none"> • Undertake direct control by service delivery of magpies where there is known to be a threat of injury to members of the public, or complaint(s) are made to that effect within 10 working days. • Respond to landowners wanting to undertake magpie control within 10 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 impact on conservation values. • Annually inspect pet shops to prevent the sale of magpies. |

3.4 Site Led Mount Bruce (Pukaha) predator buffer

Aim: Complement the native flora and fauna restoration programme undertaken by the Department of Conservation, Rangitaane o Wairarapa and the National Wildlife Trust at the Mount Bruce Scenic Reserve at a cost of \$34,300

| Objective | Means of Achievement |
|--|---|
| <ol style="list-style-type: none"> 1. To enhance the survival of native flora and fauna species in and around the Mount Bruce Scenic Reserve. | <ul style="list-style-type: none"> • Undertake a predator control programme over an area of approximately 2,223 hectares that is contiguous to the Mount Bruce Scenic Reserve. |

3.5 Feral and unwanted cats as a threat to biodiversity

Aim: Raise public awareness of feral and unwanted cats as a threat to biodiversity at a cost of \$36,750

| Objective | Means of Achievement |
|---|---|
| <p>1. Reduce the incidence of unwanted cats being released into the wild and thus becoming a threat to native wildlife.</p> | <ul style="list-style-type: none"> • Encourage territorial authorities, branches of the Society for Prevention of Cruelty to Animals and veterinary clinics to jointly provide services that support and encourage owners to have their pet cats desexed, rehomed or voluntarily euthanased. |

3.6 Site Led – Key Native Ecosystem Management (combined pest animal and pest plant management)

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems at a cost of \$653,435 (Pest Animals \$457,335; Pest Plants \$196,100)

| Objective | Means of Achievement |
|--|--|
| <p>1. Achieve a measurable improvement in the ecological health and diversity of Key Native Ecosystems using a range of suitable indicators.</p> | <ul style="list-style-type: none"> • Maintain holistic management in existing KNE areas. • Establish and implement integrated pest management plans for all Key Native Ecosystems. • Ensure Key native Ecosystems are legally protected into perpetuity. • Undertake direct control by service delivery of pests identified in integrated pest management plans. • Monitor site recovery using a range of ecological indicators. • Facilitate the involvement of community groups where appropriate. • Where Key Native Ecosystems are identified on Territorial Local Authority land, seek funding from the relevant authority to form financial partnerships. |

| Objective | Means of Achievement |
|-----------|---|
| | <ul style="list-style-type: none"> • Co-ordinate site management with other biodiversity initiatives where possible. • Use biological control agents where appropriate and support relevant biological control research initiatives. • Manage external pressures that are inconsistent with Key Native Ecosystem Management objectives. • Promote the presence of organisms that assist in control of pests in Key Native Ecosystems. • Liaise with the Department of Conservation to determine the distribution of and appropriate control methods for coarse fish, catfish and mosquito fish. • Provide public education and advice to foster biodiversity management outside formal KNE programme areas. |

4. Indicative costs and funding sources

The table below outlines indicative costs and funding sources:

| Revenue Sources | Pest Plants \$ | Pest Animals \$ |
|---|------------------|------------------|
| General Rate | 1,307,569 | 1,082,302 |
| External Income ¹ | - | 142,800 |
| Internal Income ² | - | 384,000 |
| Total Revenue/Expenditure ³ | 1,307,569 | 1,609,102 |

¹ Cost recovery work. Joint ventures, product sales

² Greater Wellington's Parks and Forests Department – forest health

³ Expenditure includes Greater Wellington overhead allocation

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 available to the public.

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. |

Water, air, earth and energy – elements in Greater Wellington’s logo that combine to create and sustain life. Greater Wellington promotes **Quality for Life** by ensuring our environment is protected while meeting the economic, cultural and social needs of the community

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Boneseed
Possum

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