

What makes a pest a pest?

A summary of the Waikato Regional Pest Management Strategy

If you own or occupy land in the Waikato region, this information affects you

The Waikato Regional Pest Management Strategy (RPMS) details which plants and animals are declared pests and why, and outlines how each pest will be managed over the life of the strategy (2008-2013). It also explains your obligations as a land occupier to manage pests, and the direct control and assistance the Waikato Regional Council provides.

The Biosecurity Act 1993 ('the act') guides pest management in New Zealand. Its main purposes are to prevent new pests from entering the country (through border control surveillance) and to manage pests that are already established here. Regional councils are primarily responsible for the latter. The act enables the Waikato Regional Council to develop a pest management approach that is specific to the region's needs and communities' expectations.

What will the RPMS achieve

- The protection and enhancement of native bush and wetland areas through planned and professional pest control in significant natural areas.
- The enhancement of export opportunities for the region's produce (for example, increased cropping and grazing) through removing pests like alligator weed, which infest maize crops.
- The provision of better access to recreational areas by removing pest plants which can smother and cause the collapse of native forests, for example old man's beard and climbing spindleberry.
- A reduction in pests affecting waahi tapu sites or displacing traditional species, such as pampas displacing flax.
- Maintenance of the gains made through the extensive Animal Health Board vector control programme over the last 19 years.
- A contribution to the protection of communities through control of pests that can cause adverse health affects, for example privet pollen leading to breathing disorders and magpie attacks on people during nesting time.



Woolly nightshade weedbusting, Franklin.
Whakaupoko West Franklin Landcare Group.

Pest management principles

- All land occupiers are responsible for managing pests on their land. A wide range of advice and information is available.
- The Waikato Regional Council controls the highest threat pests, aiming to eradicate some of them (such as climbing spindleberry, rooks and dama wallaby) from the region.
- The Waikato Regional Council encourages community and inter-agency partnerships to solve pest problems.
- Enforcement will occur when occupiers don't comply with the requirements of the strategy, or deliberately obstruct pest control operations.
- Pest management programmes undertaken benefit the whole region, so equitable funding is required from all regional land occupiers, including Crown departments and Crown entities.

Achieving practical pest management outcomes

The Waikato Regional Council uses these methods to ensure pest management is efficient and cost effective.

- **Direct control**

The Waikato Regional Council will fund and implement the control of all pests identified for eradication. It will also fund appropriate pest control in significant natural areas.

- **Community initiatives**

Communities with particular pest problems sometimes want to make a combined local effort. The Waikato Regional Council can help communities with group facilitation, initial pest control to get pest numbers down to manageable levels or provide 'seed' money to help get the group started.

- **Information and advice**

To help landowners control pests, the Waikato Regional Council will provide practical advice through fact sheets, our website www.waikatoregion.govt.nz, field and demonstration days and via a toll free number to contact accredited pest contractors in their area (0800 BIOSECURITY – 0800 246 732).

- **Monitoring**

The Waikato Regional Council does monitoring before and after pest control operations to ensure that control targets or standards are achieved, thereby ensuring results for communities. Monitoring also identifies new pest problems and potential issues in neighbouring regions.

- **Strategy rules and enforcement**

Rules in the strategy require land occupiers to control pests to a set standard. If a land occupier doesn't comply, there's a four step enforcement procedure used to ensure compliance.

- **Biological control**

The Waikato Regional Council releases appropriate plant pest biological control agents in collaboration with land occupiers and interested groups. We also help fund national research into new biological control agents for pests like wild ginger, privet and possums.

Priorities

Each pest in the strategy has been placed into one of three categories, based on its effects, distribution and density, and the control methods available.

Pest category	Explanation
Eradication pest – a pest that is of limited distribution or density in the region, where the eventual goal is eradication at known sites.	This category applies to pests for which reduction to zero density at known sites is considered possible over the life-span of the strategy or subsequent strategies. The Waikato Regional Council will fund and implement appropriate control programmes for these pests (for example, alligator weed).
Containment pest – a pest that is abundant in suitable habitats in the region. The goal is to contain the pest within its range, or prevent its spread to neighbouring properties or other parts of the region to reduce its effects.	Eradication or achieving zero density under this category is unlikely or impossible because of the pest's reproductive ability, seed dispersal methods or current widespread distribution in the region. The Waikato Regional Council will develop and enforce strategy rules requiring land occupiers to control these pests (for example, woolly nightshade). Many pest plants fall into this category and it would be unrealistic to indicate that anything other than containing them is possible at this stage.
Potential pest – a pest of concern to the region, where surveillance and appropriate direct control will be carried out to prevent it becoming widely established.	This category generally applies to pests which have a high potential threat. They may be prevalent in neighbouring regions, but their extent and possible effects in the Waikato region are relatively unknown. The category may also apply to species that are just emerging as potentially serious pests within the region. The Waikato Regional Council will undertake surveys, gather information and keep records on these pests. If control is warranted, it would be undertaken by the council, not the land occupier.



Mamaku before possum control



Mamaku after possum control

Pest plant management

The RPMS identifies management programmes for 59 plant pests in the three pest categories that warrant some level of regional intervention. All 59 plants are banned from sale, display, distribution and propagation throughout the region.

A number of new pests feature in the strategy – four in the eradication category (including cathedral bells, Japanese knotweed, giant knotweed and mile-a-minute). Under the containment pest section there are seven new pests listed with land occupier control obligations. These are banana passionfruit, Darwin's barberry, Mexican devil, Taiwan cherry and rum cherry, tutsan, willow (grey and crack) and yellow flag iris.

Also featured in the strategy are new policies and initiatives, for example, the mandatory removal of all containment pest plants from rail and road reserves, weed hygiene procedures and new rules related to subdivision development.

A mix of contracted biosecurity officers and the Waikato Regional Council staff in seven management areas in the region are responsible for carrying out monitoring, surveillance, enforcement and direct control work. They also provide advice and information and organise larger scale control. Contract management, including prioritising, designing and promoting pest control programmes, is carried out by the Waikato Regional Council's staff.

Eradication pest plants

The Waikato Regional Council will directly manage and control the following 15 plants or classes of plants¹. The Waikato Regional Council will also monitor these pests, provide information to the community about them, and report annually on the progress of control operations.

- African feather grass (*Pennisetum macrourum*)
- Alligator weed (*Alternanthera philoxeroides*)
- Cathedral bells (*Cobaea scandens*)
- Climbing spindleberry (*Celastrus orbiculatus*)
- Evergreen buckthorn (*Rhamnus alaternus*)
- Japanese knotweed and giant knotweed (*Fallopia japonica* and *Fallopia sachalinensis*)
- Manchurian wild rice (*Zizania latifolia*)
- Mile-a-minute (*Dipogon lignosus*)
- Nassella tussock and fine stemmed needle grass ('Mexican feather grass') (*Nassella trichotoma* and *N. tenuissima*)
- Noogoora bur (*Xanthium strumarium*)
- Old man's beard (*Clematis vitalba*)
- Senegal tea (*Gymnocoronis spilanthoides*)
- Spartina (*Spartina species and hybrids*)
- Variegated thistle (*Silybum marianum*)
- White bryony (*Bryonia cretica*)

¹ DOC is the lead agency for spartina control.



Containment pest plants

The following table summarises 23 plants, or classes of plants, which land occupiers are responsible for controlling under the strategy rules. The Waikato Regional Council will monitor these pests, inspect properties and provide information and advice on identification and control options. The Waikato Regional Council will also develop direct control programmes for some of these pests, in specific areas, depending on the threats posed or pest densities. For example, large infestations of woolly nightshade will be targeted at Port Waikato.



Pest plants along road and railway, Tuakau

Containment pest plants	Strategy rules		Other Waikato Regional Council assistance	
	Total control	Boundary control	Biological control	Direct control (discretionary)
Australian sedge (<i>Carex longebrachiata</i>)		✓ (20 metres)		✓
Banana passionfruit (<i>Passiflora tripartita</i> and <i>P. mixta</i>)	✓			✓
Boneseed (<i>Chrysanthemoides monilifera</i> ssp. <i>monilifera</i>)	✓		✓	✓
Broom (<i>Cytisus scoparius</i>)		✓ (20 metres)	✓	✓
Climbing asparagus (<i>Asparagus scandens</i>)	✓			✓
Darwin's barberry (<i>Berberis darwinii</i>)	✓			✓
Gorse (<i>Ulex europaeus</i>)		✓ (20 metres)	✓	
Mexican devil (<i>Ageratina adenophora</i>)	✓ ²			✓
Mignonette vine (<i>Anredera cordifolia</i>)	✓			✓
Mistflower (<i>Ageratina riparia</i>)	✓ ³		✓	✓
Moth plant (<i>Araujia sericifera</i>)	✓			✓
Nodding and plumeless thistle (<i>Carduus nutans</i> and <i>C. acanthoides</i>)	✓ ⁴	✓ (50 metres)	✓	✓
Pampas (<i>Cortaderia jubata</i> , <i>C. selloana</i> and cultivars)	✓ ⁵			✓
Pinus contorta (<i>Pinus contorta</i>)	✓			✓
Privet (Chinese and tree privet) (<i>Ligustrum</i> species)	✓ ⁶			✓
Purple nutsedge (<i>Cyperus rotundus</i>)	✓			
Ragwort (<i>Senecio jacobaea</i> and <i>Jacobaea vulgaris</i>)	✓ ⁷	✓ (50 metres)	✓	
Taiwan cherry and rum cherry (<i>Prunus campanulata</i> and <i>P. serotina</i>)	✓ ⁸			✓
Tutsan (<i>Hypericum</i> and <i>rosaemum</i>)		✓ (20 metres)		✓
Wild ginger (kahili and yellow) (<i>Hedychium gardnerianum</i> and <i>H. flavescens</i>)	✓			✓
Willow (grey and crack) (<i>Salix cinerea</i> and <i>S. fragilis</i>)				✓
Woolly nightshade (<i>Solanum mauritianum</i>)	✓			✓
Yellow flag iris (<i>Iris pseudacorus</i>)	✓			✓

² Excluding Thames Coromandel area.

³ Excluding Thames Coromandel area.

⁴ Total control in intensively farmed areas, boundary control in less intensive areas. See RPMS for maps of areas.

⁵ Total control in parts of region only (Taupo, Rotorua, South Waikato, Matamata Piako, Waipa and parts of Otorohanga, Waitomo and Hauraki districts). See RPMS for map of total control area.

⁶ Total control where the Waikato Regional Council receives a valid health related complaint from occupier living or working within 50 metres of the privet. Total control on roadsides and rail corridors.

⁷ Total control in intensively farmed areas, boundary control in less intensive areas. See RPMS for maps of areas.

⁸ Total control where plants are likely to be acting as a seed source for wild seedlings.

Potential pest plants

A number of plant pests could potentially become invasive weeds in the Waikato region. Some of the plants do not yet have a known presence in the region, while others have limited distributions. More information is needed to make informed decisions about their effects on the environment.

Potential pest plants are banned from sale, propagation and display.

- Bushy asparagus (*Asparagus aethiopicus* excluding 'Foxtail' cultivar)
- Californian bulrush (*Schoenoplectus californicus*)
- Chilean flame creeper (*Tropaeolum speciosum*)
- Chilean rhubarb⁹ (*Gunnera tinctoria* and *G. manicata*)
- Chocolate vine (*Akebia quinata*)
- Freshwater eel grass (*Vallisneria gigantea*, *V. spiralis*)
- Fringed water lily (*Nymphoides peltata*)
- Hawkweed
- Horse nettle (*Solanum carolinense*)
- Horsetail (*Equisetum species*)
- Hydrilla (*Hydrilla verticillata*)
- Kudzu vine (*Pueraria montana*)
- Marshwort (*Nymphoides geminata*)
- Mexican water lily (*Nymphaea mexicana*)
- Monkey apple tree (*Syzygium smithii* also known as *Acmena smithii*)
- Mouse-eared hawkweed (*Hieracium pilosella* and *Pilosella officinarum*)
- Purple loosestrife (*Lythrum salicaria*)
- Reed sweetgrass (*Glyceria maxima*)
- Saltwater paspalum (*Paspalum vaginatum*)
- Rhododendron ponticum (*Rhododendron ponticum*)
- Sagittaria (all *Sagittaria* species – except *S. subulata* in Lake Waahi only)
- Water poppy (*Hydrocleys nymphoides*)

Not all harmful plants are addressed in the strategy. For many harmful plants it is not appropriate, necessary or reasonable to include them in the strategy. For example *Tradescantia* (also known as wandering Jew), Japanese honeysuckle and blackberry are not declared pests as they are considered too widespread throughout the Waikato for any regional intervention, except providing land occupiers with general control options for these pests.

However, other management responses may apply.

- The Waikato Regional Council may undertake small-scale management programmes for 'unwanted organisms' under section 100 of the Act, for harmful plants not yet found in the Waikato region but which may arrive during the strategy period.
- The Waikato Regional Council participates in the National Pest Plant Accord, which involves enforcing a national ban on the sale, propagation and distribution of a list of recognised harmful plants, which have been declared 'unwanted organisms', through annual nursery and plant outlet inspections.
- We support voluntary actions by individuals and other interested groups, such as Weedbuster initiatives.
- MAF Biosecurity New Zealand are undertaking national pest management programmes for harmful plants. These are plants for which national intervention is considered appropriate, for example white bryony and Manchurian wild rice.

⁹ Landowners required to destroy self-propagating Chilean rhubarb on their land.

Yellow flag iris infestation, lower Waikato



Animal pest management

The RPMS identifies management programmes for 22 animal pests, or classes of pests, that warrant some level of regional intervention.

Each animal is identified by one or more of the following threats:

- production threat
- public threat (affecting human health)
- environmental threat.

The Waikato Regional Council considers that feral pigs and wild deer meet the criteria for control as pests under the Biosecurity Act. However, some stakeholders disagree and the Waikato Regional Council has agreed to not designate these animals as RPMS pests. Instead, should they need to be controlled, the Waikato Regional Council would follow the provisions of the Wild Animal Control Act administered by the Department of Conservation.



Monitoring rat populations using tracking tunnels, Harker Reserve

Animal	Pest (y/n) rules	Production threat	Environmental threat	Public threat
Dama wallaby	y	✓	✓	
Feral cat	y		✓	✓
Wild deer	n	✓	✓	
Feral goat	y	✓	✓	
Feral pig	n	✓	✓	
Hedgehog (European)	y		✓	
Mustelids – ferret, stoat, weasel	y	✓	✓	
Possum	y	✓	✓	
Rabbit	y	✓	✓	
Rat	y	✓	✓	✓
Magpie	y		✓	✓
Rainbow lorikeet	y		✓	
Rook	y	✓		
Brown bullhead catfish	y		✓	
Koi carp	y		✓	
Gambusia	y		✓	
Wild goldfish	y		✓	
Perch	y		✓	
Tench	y		✓	
Rudd	y		✓	
Asian paper wasp	y	✓	✓	✓
Australian paper wasp	y	✓	✓	✓
Common wasp	y	✓	✓	✓
German wasp	y	✓	✓	✓
*Lesser banded hornet	n	✓	✓	
*Median wasp	n		✓	✓
*Yellow flower wasp	n		✓	✓
Argentine ant	n		✓	✓
*Darwin's ant ¹⁰	n		✓	✓
*Little fire ant	n	✓	✓	✓
*Red imported fire ant	n	✓	✓	✓
*Tropical fire ant	n	✓	✓	✓
*Yellow crazy ant	n	✓	✓	✓

¹⁰ The first population recorded in Auckland in 1959 was eradicated, but the species is now established in Christchurch and additional populations are known from the northern and eastern North Island and the northern South Island.

* Although these ant species are not yet in the Waikato region, they are harmful animals that could have considerable negative impacts on the region's biodiversity.

The Waikato Regional Council will give priority to eradicating rooks and dama wallaby from the region. Land occupiers will be required to control magpies and wasps where there is a valid complaint made and the nest occurs on the land occupier's property. In areas where bovine Tb vector control work is ending under previous Animal Health Board programmes, the Waikato Regional Council will endeavour to maintain the gains made by including these areas in future priority possum operations. This will enhance biodiversity in these areas.

All animal control work is contracted out and up to 10 preferred contractors compete for a number of one-off and longer term contracts.

Strategy highlights

The benefits from 'maintaining the gains'

The single biggest factor affecting pest management in the Waikato over the next several years will be the gradual decline in pest control funded by the Animal Health Board. The Waikato region has benefited economically and ecologically from millions of dollars spent by the Animal Health Board to control possums. Although the main goal was to eradicate bovine Tb in the region, areas that have had intensive possum control for bovine Tb have also seen increases in native bird life, much healthier bush and an overall improvement in community amenity (such as healthy orchards and gardens).

In 2006, the Waikato Regional Council's Long Term Council Community Plan noted that bovine Tb is likely to be eradicated from domestic stock by 2013. This means that funding from the Animal Health Board will gradually be directed to pest control in other parts of the country, even though Waikato farmers will continue to pay levies on livestock. Even with the disease itself eliminated, however, the regional council believes it would be irresponsible to allow possum numbers to rebound. Everyone in the community will benefit if we can maintain the gains we have made in pest control so far.

The Waikato Regional Council believes there is a national interest in continuing pest control even after Tb is eradicated. We are working hard to convey this message to government and thereby reduce the financial burden on regional ratepayers.

Biodiversity protection

An amendment to the Resource Management Act in 2003 made regional councils responsible for managing New Zealand's native biodiversity – plants and animals found nowhere else. However, many of our native species cannot thrive without aggressive pest control at key sites. For example, in areas without predator control, approximately 95 per cent of kiwi chicks are killed before they reach maturity.

But up to 80 per cent of kiwi chicks survive in areas where possums, rats and stoats have been intensively controlled. The council plans to expand the amount of land on which we control pests in order to protect and enhance biodiversity. However, like all our work, those efforts will be limited by funding constraints.

An example of our biodiversity work is the Hamilton Halo Project, which was initiated to help bring more native birds back into Hamilton city. Hamilton has very few iconic native species such as tui, bellbird and kereru. These species are both important pollinators and dispersers of native plants, and are also highly valued by residents of the city. The Hamilton Halo Project is designed to promote habitat restoration and biodiversity, with a focus on tui as a key iconic species for the Waikato. A similar programme in Wellington city resulted in the rapid return of native birds to urban areas.

The "halo" concept refers to protecting nesting tui from introduced predators (mostly ship rats and possums) within the birds' 20 kilometre winter feeding range around Hamilton. Research has shown that there are few or no tui in Hamilton because the bush areas around the city where they nest are overrun with rats and possums. Tui nesting success is only around 27 per cent in these areas. To increase this figure and ultimately the number of tui visiting the city, the Waikato Regional Council has undertaken annual rat control at selected breeding sites. It will be a few years until the full results are known, but early research is already finding more tui in the city.

Beyond protecting biodiversity in general, the RPMS also specifically seeks to improve the health of rare geothermal ecosystems. Almost 80 per cent of New Zealand's geothermal systems occur within the Waikato region, and they are accompanied by unusual plant species. These include plants capable of surviving high soil temperatures, species which are usually confined to warmer climates, and unique species and distinct genetic forms arising where ground temperatures are stable. Geothermal vegetation in the Waikato region is under threat from pest plants and animals and from misuse by people. Monitoring, protection and restoration are essential to stem the decline of these fragile ecosystems.

Healthy forests and streams

This pest management strategy allows the Waikato Regional Council to address erosion and flooding problems that are exacerbated by the possums, goats and other pests that damage our native forests. Healthy trees with plenty of leaves slow down rainfall that might otherwise cause slips, while their roots help stabilise the soil in steep areas. Pests are not the largest factor in erosion and flooding problems, but they can make these issues worse. The Waikato Regional Council is gathering information as part of the catchment management scheme covering the Coromandel Peninsula to show how much controlling goats and possums reduces erosion, run-off and downstream flooding.

Who pays for pest control?

The main funding principle underpinning pest management is that those who benefit from control, or those who contribute to the existence of a pest problem, should pay for the administration and implementation of the strategy. In most cases, land occupiers are expected to fund the direct cost of pest management on their property.

The presence of pest plants and animals imposes significant costs (monetary and non-monetary) on others, which means neighbouring land occupiers and the regional community also benefit from the control of these pests. Accordingly, the regional community will contribute to the collective costs of implementing the strategy.

To fund the 'public good' component of pest management, the Waikato Regional Council has adopted a targeted rate based on the capital value for each separately rateable property in the region. Like all of our budgets, the costs of pest management are decided through the annual plan process. This means that the funding available for any part of the Regional Pest Management Strategy may vary from year to year.

In addition to rates, the Waikato Regional Council will recover other costs through its powers under the Biosecurity Act. Direct charges will be recovered from land occupiers who fail to follow the rules in the pest management strategy.

The Waikato Regional Council believes that the Crown should pay its fair share and be treated as any other landowner in terms of pest management. Unfortunately the Biosecurity Act exempts the Crown from being bound to regional pest management rules. This means that regional ratepayers end up paying costs that should be paid by the Crown. For example, the Waikato Regional Council believes the Crown contribution should be in excess of \$350,000 per annum, but in 2008 we received only about \$150,000. The council will continue to press the Crown to pay its fair share as a land owner in the region.

Protect the Waikato region from harmful pests – call 0800 BIOSECURITY (0800 246 732)

Further information

Further information on the RPMS and biosecurity issues is available on our website www.waikatoregion.govt.nz, or by calling the Waikato Regional Council's freephone on 0800 800 401.

Biosecurity publications available from the Waikato Regional Council

The following documents are available on the the Waikato Regional Council website:

- Regional Pest Management Strategy.
- Regional Pest Management Strategy operational plans (for given years).
- Waikato Regional Pest Management Strategy annual reports (for given years).
- The Waikato Regional Council biosecurity factsheet series for pest plants and animals.

Other booklets can be ordered on our website:

- Poisonous Plants and Fungi in New Zealand – a guide for parents, schools and child minders – \$15.00 including GST.
- National Pest Plant Accord manual – view online for free or order a hard copy for \$10.00 including GST.
- Plant Me Instead – order a free hard copy online.
- Pest plants and animals in the Waikato region – rules and identification 'ute' guide – booklet – free.

Weedbusters

Weedbusters is an inter-agency weeds awareness and education programme designed to protect New Zealand against the spread of invasive weeds. The Weedbusters vision is that all New Zealanders will be aware of and take action to reduce the spread of weeds and their impact on the environment, economy and human health.

Weedbusters can help you in the fight against weeds by:

- helping you recognise weeds
- describing ways to prevent weeds from getting established
- explaining methods to control weeds
- offering tips for safe disposal of weeds
- providing support for Weedbusters groups.



To find out more visit www.weedbusters.org.nz.