



Regional Pest Management Strategy – Operational Plan Report 2014/15



greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao



Regional Pest Management Strategy 2002-2022

Pest Animals and Pest Plants

Operational Plan Report 2014/15

Biosecurity Department

For more information, contact Greater Wellington:

Masterton
PO Box 41

T 06 378 2484
F 06 378 2146
www.gw.govt.nz

Upper Hutt
PO Box 40847

T 04 526 4133
F 04 526 4171
www.gw.govt.nz

October 2015

www.gw.govt.nz
info@gw.govt.nz

Contents

1.	Introduction	
1.1	Biosecurity at the Greater Wellington Regional Council.....	3
1.2	Purpose of the Operational Plan Report	3

Part One – Pest Animals

2.	Surveillance species	5
3.	Total Control - rooks	6
4.	Suppression species – rabbits	8
5.	Site-Led species - magpies.....	11
6.	Site-Led species – human health wasps.....	12
7.	Site-Led – Key Native Ecosystems (KNE), Reserves and Forest Health	13
8.	Site-Led – biodiversity - possum	18
9.	Site-Led – Mt Bruce (Pukaha) predator buffer	20
10.	Site-Led – Regional Possum and Predator Control Programme (RPPCP)	20
11.	Public enquiries.....	22

Part Two – Pest Plants

12.	Surveillance species	23
13.	Total Control species	24
14.	Containment species	27
15.	Site-Led boundary control, suppression and human health species.....	28
16.	Site-Led – Key Native Ecosystems, Reserves and Forest Health	29
17.	Biological control.....	31
18.	National Interest Pest Response Programme (NIPR).....	32
19.	Public enquiries.....	33
	Appendix 1 – Biocontrol agents released in the Wellington Region	34

1. Introduction

1.1 Biosecurity at the Greater Wellington Regional Council

The Wellington region is under threat from a number of pest animal and plant species. The Greater Wellington Regional Council (GWRC) is involved in the control of unwanted plants and animals for environmental, economic and social reasons:

- 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
- 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 our agricultural industries
- Pest plants and pest animals cause a considerable nuisance to many aspects of rural and urban life, inhibiting the ability of people to enjoy their property, lifestyle and wellbeing.

The Regional Pest Management Strategy 2002-2022 (RPMS) provides the strategic and statutory framework for effective pest management in the Wellington region. The central focus of the RPMS is on mitigating pest threats to society, to farming and agriculture in general, and supporting indigenous biodiversity and health of our ecosystems. There are two major objectives:

1. to minimise the actual and potential adverse and unintended effect of pests on the environment and the community; and
2. to maximise the effectiveness of individual pest management programmes through a regionally coordinated response.

Many advances in the effective management of a wide range of pest plants and pest animals have been made during the life of the Strategy. In response, indigenous biodiversity has been enhanced and local economic values protected over large parts of the region. We were able to achieve this due to support from landowners, volunteer groups and Local Authorities.

1.2 Purpose of the Operational Plan Report

This document reports against the achievements and outcomes of GWRC's biosecurity related activities. The work programme was set by the RPMS Operational Plan 2014/15 and is in line with the GWRC Annual Plan, which sets the overall priorities and work programmes for the organisation.

The implementation of the RPMS requires resources. Our obligation to the community is to ensure these resources are used as efficiently and effectively as possible. This report provides some detail of how and where those resources were applied in 2014/15 year.

The report is structured in two parts:

Part One - Pest animals

Part Two - Pest plants

The content is organised to correspond with the Operational Plan 2014/15. In the Pest Animal and Pest Plant sections the aim, cost, means of achievement, and the actual performance is reported on for each pest species or management category.

Part One

Pest Animals

Species led programmes

2. 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 \$33,600.

Annual cost: The cost of surveillance species management (monitoring, investigation, publicity and reporting) for the region was \$1,000.

The species in this category are Argentine ants, Australian subterranean termites, Darwin's ant, rainbow skink and red-eared slider turtle.

Means of achievement

Provide information and publicity to enhance public awareness of the surveillance species.

Actual performance

There was no demand for additional information on these species in the region during 2014/15.

Greater Wellington Regional Council (GWRC) worked with the Ministry for Primary Industries (MPI), Department of Conservation (DOC), New Zealand Transport Agency, contractors and nursery owners to address the threat of rainbow skinks being introduced to the region. The pathway of concern was native plants brought into the region for the Mackays to Peka Peka Expressway project. MPI has developed a set of guidelines to be used by nurseries which the nursery has adopted. To date no rainbow skinks have been detected at the nursery.

Means of achievement

Record and report any incidences of the Surveillance species in the region.

Actual performance

There were three new reports of Argentine ants in the Wellington Region. Identification information and control advice was provided.

In December 2014 GWRC received reports of increased Argentine ant activity in a known incursion area in Waikanae. Some residents speculated that increased earthwork for the adjacent SH1 expressway re-alignment work was the cause. An inspection was carried out in January 2015 which showed a very modest expansion from the previously mapped incursion area.

In June 2015 five de-sexed Dama wallabies escaped from an approved facility in Kaitoke. MPI asked GWRC staff to investigate. All of the wallabies were

successfully recaptured. Wallabies are currently an unwanted organism and not listed in the GWRC RPMS. No known wild populations exist in the Wellington region.

Retailer inspections for pests listed in the Strategy

GWRC did not inspect any outlet retailers in 2014-15 to ensure compliance with the Strategy rules for pest animals. With an increased move to online retailing, Pest Animals staff monitor Trade Me website for animal sales.

3. Total Control – rooks

Aim: To manage rooks as a Total Control category pest to levels that protects production systems at a cost of \$83,900

Annual cost: The cost of rook management (surveys, research, compliance, education) for the region was \$37,500

Means of achievement

Undertake direct control by Service delivery where rooks are known to exist.

Actual performance

Eleven breeding rookeries were identified in the Wairarapa during 2014/15. Due to nest damage by strong winds only six nests were baited.

The rook control programme remains on track to achieve total control (eradication) of rooks in the Wellington region by 2025. The number of treated nests has reduced from 150 in 2009/10 to six in 2014/15. This number may have been greater if weather conditions had remained calm during the breeding season.

For a number of years GWRC have not received any reports of rook damage to crops in the region.

Means of achievement

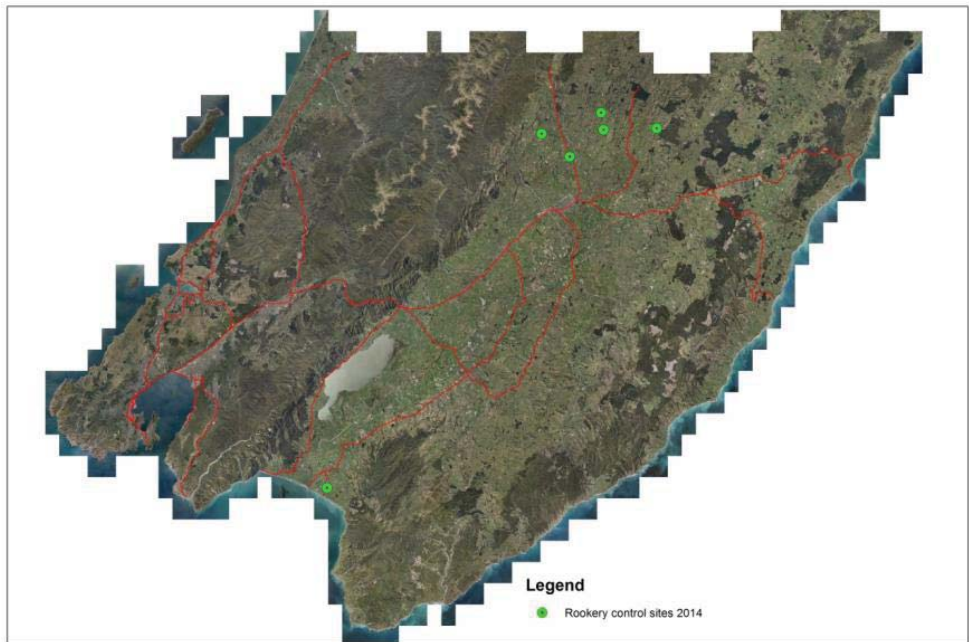
Survey rook populations annually in areas where they are known to exist, and where new infestations are reported.

Actual performance

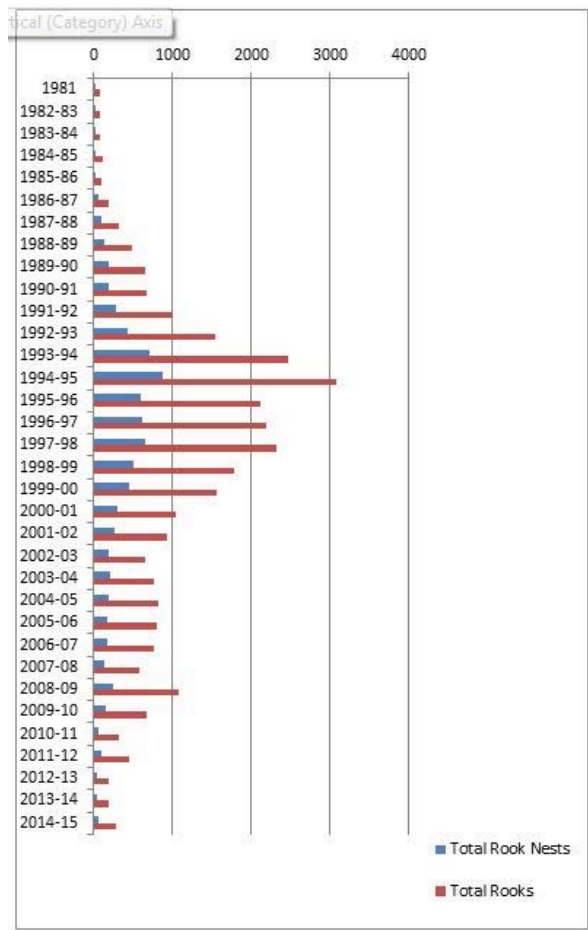
There are a 110 known rookery sites in the region, both historical and current. All of the sites were visited to determine the presence or absence of rooks. Some ground surveys are followed by an aerial survey in spring to check for the presence/absence of nests, with eggs or chicks.

The rook programme relies heavily on the public and landowners in the region to help with locating rooks. The control programme is publicised annually in newspapers, urging the public to report sightings. This year two new rookeries and the reactivation of six old rookeries were reported by the public. All rookeries were very small in size. Ongoing gale winds destroyed a number of nests at these active rookeries and forced birds to abandon nesting. Only six

rookeries were baited due to the weather, see figure 1, with often only one nest at each site.



Rookeries treated during the 2014 season



Total number of rookeries and number of rooks (estimated) in the Wellington region

Means of achievement

Ensure compliance with the RPMS rules.

Actual performance

The advertising campaign continues to remind landowners of their responsibilities when managing rooks. Private attempts at rook control can lead to rookery fragmentation and dispersal over a wider area. Rooks may also become bait shy if poisoning is attempted using inappropriate methods and baits. Public/landowner education is the key to ensure control is managed by GWRC.

Means of achievement

Encourage Horizons Regional Council to actively pursue management of rooks within their region that complements GWRC's Total Control programme.

Actual performance

Horizons Regional Council was actively involved in aerial nest baiting in the 2014/15 year. Both GWRC and Horizons have cooperated in the annual joint nest baiting programme on both sides of the regional boundary. The programme is designed to prevent the southward migration of rooks into the Wairarapa.

4. Suppression species – rabbits

Aim: To minimise the adverse impacts of feral rabbits throughout the region at a cost of \$149,200

Annual Cost: The cost of rabbit management (surveys, service delivery, biological control, compliance, education and research) for the region was \$143,600

Means of achievement

Undertake direct control to manage rabbits on riverbeds, esplanades or similar public commons to ensure that rabbits do not exceed Level 5 of the Modified McLean Scale.

Actual performance

There were no situations in the region that required regulatory intervention. Most rabbit control during the year was undertaken to protect new plantings in re-vegetation projects by care groups, Territorial Local Authorities and private land owners. Regular night shooting in parks, reserves and cemeteries was undertaken for Wellington City Council (WCC), Hutt City Council (HCC) and Kapiti Coast District Council (KCDC). Costs for these activities were fully recovered.

Means of achievement

Survey land in high to extreme rabbit prone areas to determine the extent of rabbit infestation.

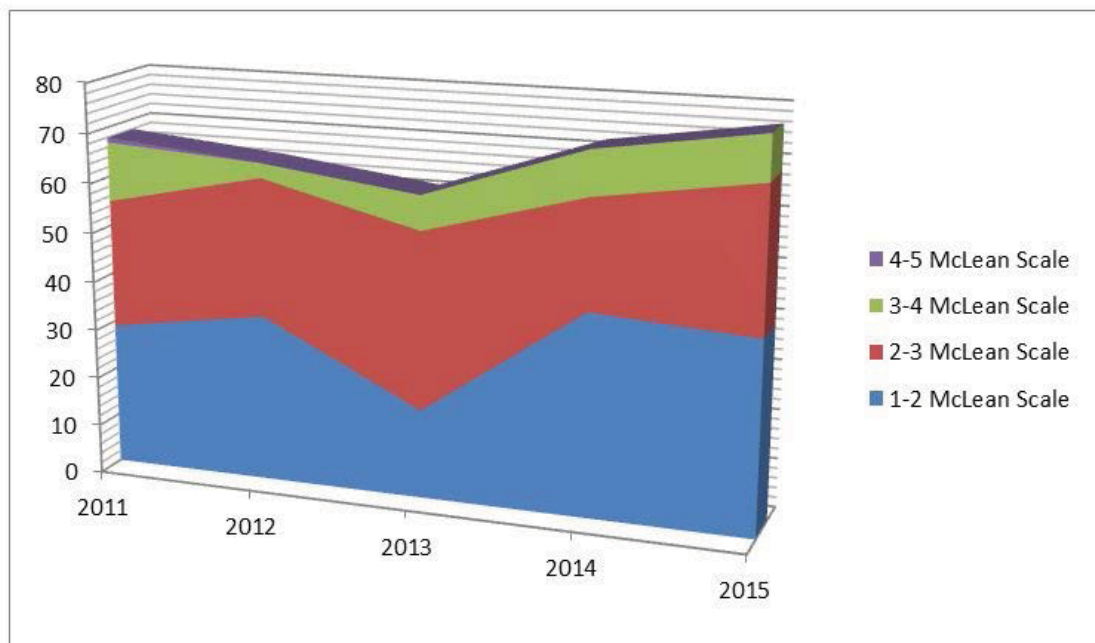
Actual performance

Daytime surveys were undertaken in May 2015 at four properties in the Wairarapa that have previously had a history of high rabbit numbers. Property locations range from the Tararua range to the east coast and provide an overview of current rabbit trends for the region. Rabbits appeared to be in similar numbers as 2013.

The rabbit prone areas of the Kapiti Coast were monitored in late May 2015, with rabbits present throughout the area in low numbers. Hot spots still exist around park areas, lifestyle blocks and smaller private properties with good rabbit cover and overgrazed pasture or large expanses of lawns. No properties were above level 5 on the Modified McLean Scale.

Peka peka is seeing an increase in rabbit numbers due to high immunity to the Rabbit Haemorrhagic Disease (RHD) virus and increased subdivision preventing effective rabbit control.

The RHD continues to cycle naturally in most of the Greater Wellington region.



Rabbit property survey results from 2011 - 2015

Means of achievement

Release biological control agents for the control of feral rabbits when appropriate.

Actual performance

GWRC did not reintroduce the RHD virus in the 2014/15 period.

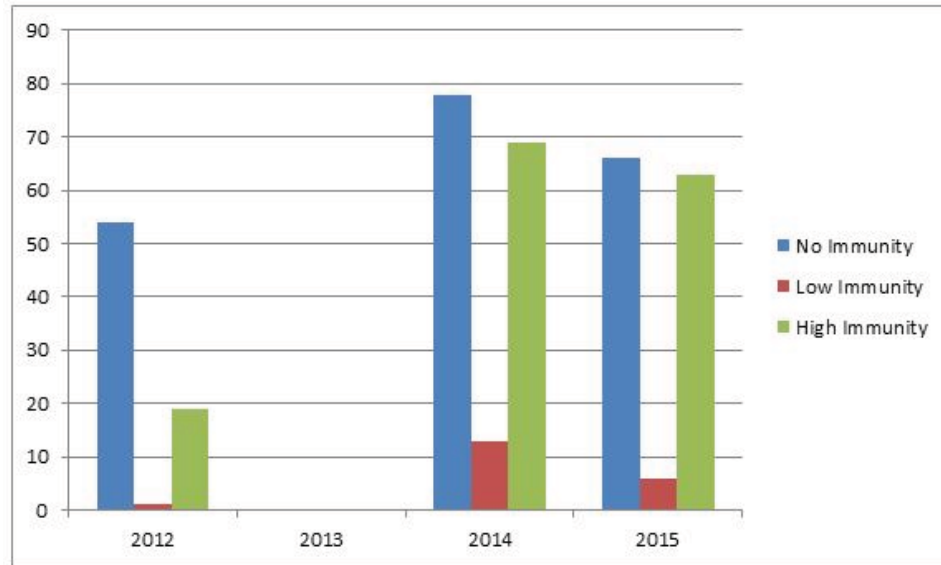
Means of achievement

Support research initiatives including biological control.

Actual performance

GWRC supported a national effort to retain an active permit to import RHD antibodies for release.

Annual rabbit blood sampling was conducted throughout the region on various parks, reserves and private land to assess immunity for RHD virus. High immunity was present in the northern areas of the Kapiti Coast.

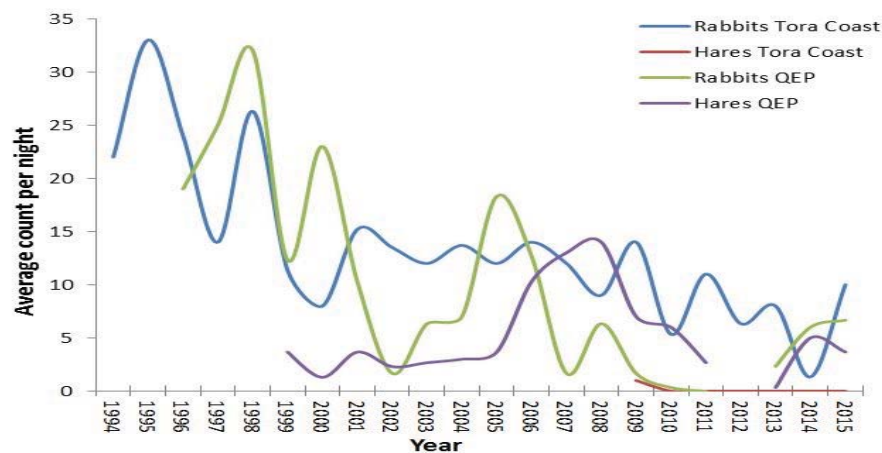


Rabbit Haemorrhagic Disease immunity levels for the Wellington region

Rabbit trend monitoring

Rabbit and hare night counts are conducted between May and July each year in Queen Elizabeth Park (QEP) on the Kapiti coast and on the Tora coast, in the Wairarapa. The aim of the monitoring is to determine the rabbit and hare population at these two sites in the absence of formal control.

The average number of rabbits counted on the Tora coast increased this year. The average number of rabbits in QEP has stayed the same and remains low, with less hares sighted.



The average count of rabbits and hares on the Tora Coast, Wairarapa and QEP, Kapiti over three nights counting at 25 stations

5. Site-Led species – magpies

Aim: To manage magpies to minimise adverse environmental and human health impacts in the Wellington region at a cost of \$46,700

Annual Cost: The cost of magpie management to minimise adverse environmental and health impacts for the region was \$40,700

Means of achievement

Undertake direct control 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.

Actual performance

Fifteen complaints were logged in the Wairarapa and seven in the Western Zone regarding attacking magpies. All complaints were attended to within 10 working days.

Means of achievement

Respond to landowners wanting to undertake magpie control within 15 working days of receiving a request for information and/or assistance.

Actual performance

We received 75 calls during the 2014-15 year and all queries were resolved within 10 working days. Staff provided advice on best practice trapping techniques to maximise catch results, and had loan traps available.



Multi-catch magpie trap loaned to private landowners

6. 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 \$3,700

Annual Cost: The cost of wasp management to minimise the adverse human health and environmental impacts for the region was \$5,500

Means of achievement

Provide advice and education to occupiers wanting to undertake wasp control.

Actual performance

Advice on how to treat wasp nests was provided upon request. There were three wasp complaints which related to the safety of either a neighbouring property or the general public which required GWRC staff involvement.

GWRC contributed funding to investigate the potential of a mite recently found on vespula wasps in New Zealand as a form of biocontrol.



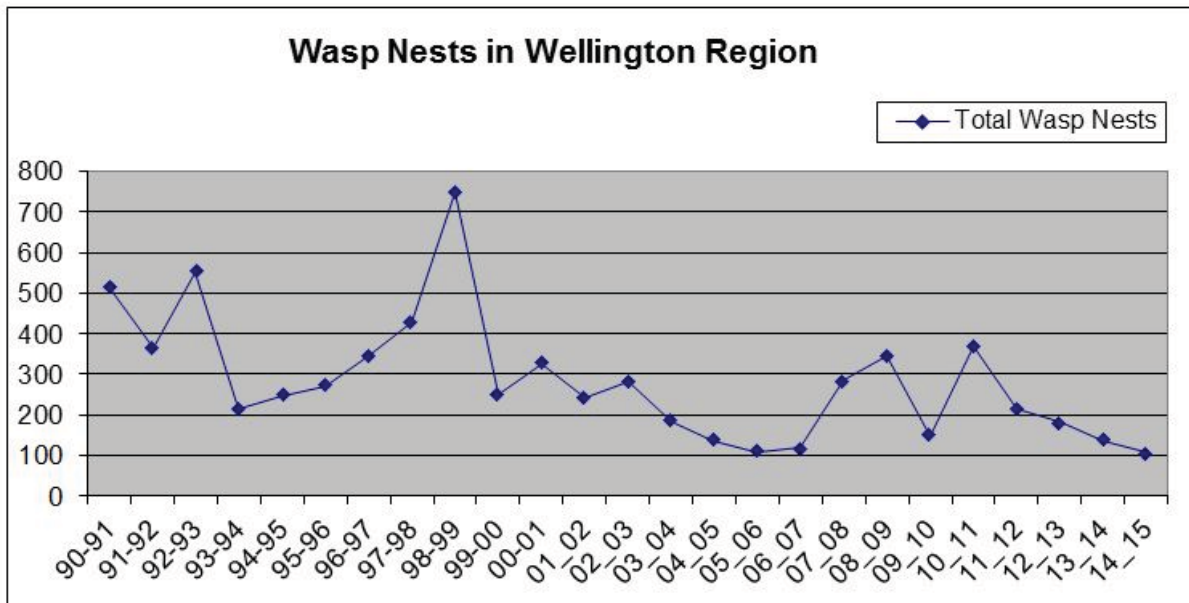
A wasp nest treated with powdered insecticide

Wasp season 2014/15

Various Territorial Local Authorities (TLAs), DOC and GWRC respond to wasp nest nuisance calls within the Wellington region. All calls have been recorded in the 'Wasp Nest Register' since 1990/91 and can be used to

summarise wasp nest type, location, time of year and frequency of occurrence. This data was supplied to the national wasp research project, and provided a valuable insight into changes in the region over time.

A downward trend of wasp complaints continued.



Wasp nuisance nest calls for the Wellington Region

7. Site-Led - Key Native Ecosystems (KNE), Reserves and Forest Health

Aim: To protect indigenous biodiversity in a comprehensive selection of Key Native Ecosystems and reserves at a cost of \$1,561,600

Annual Cost: The cost to achieve a measurable improvement in the ecological health and diversity of Key Native Ecosystems and reserves through pest animal control was \$1,428,000

Means of achievement

Ensure KNEs are legally protected into perpetuity.

Actual performance

Most KNEs treated during 2014/15 included some legally protected or publically owned land. This includes TLA Reserves, QEII covenants, or contained legally protected sites within the management area.

Means of achievement

Establish and implement integrated pest management plans for all KNEs and selected Reserves.

Actual performance

KNE plans are being produced for all 61 KNE sites. As of June 2015, nine KNE plans have been published to date. Thirty two other plans are in various stages of development and will be completed in the next year.

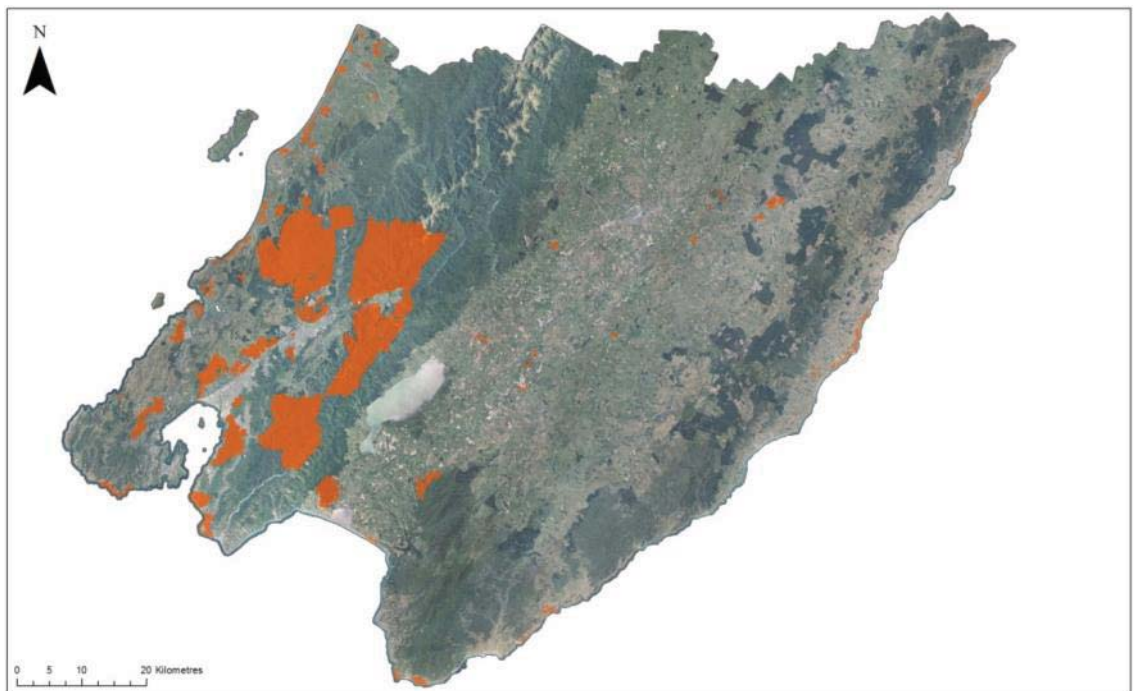
Means of achievement

Undertake direct control by service delivery of pests identified in the management plan for each KNE.

Actual performance

During the 2014/15 year, pest animal control of possums, rats and/or mustelids was undertaken at 52 of the 61 KNE sites. New pest animal control networks consisting of bait-stations and/or kill-traps were set up at Homewood-Matariki, Haywards Scenic Reserve, O Te Pua/Paru a Uku Wetlands and Whangaimoana Coast KNE sites.

Control of mammal predators using an aerial 1080 drop was undertaken at Kaitoke Regional Park and Hutt River Catchment.



Sites managed as part of GWRC's Key Native Ecosystem (KNE) programme in the Wellington Region 2014/15

Means of achievement

Maintain holistic management in existing KNE areas.

Actual performance

KNE plans systematically identify all threats to indigenous biodiversity and make available resources to targeted control of animal pest and weeds.

Means of achievement

Where KNEs are identified on TLA land, seek funding from the relevant authority to form financial partnerships.

Actual performance

GWRC maintains good working relationships with all of the regional TLAs, including a number of shared funding agreements for pest management. Memoranda of Understanding (MOU) provide a formal platform for this relationship. The MOU is prepared and agreed annually between the GWRC Biodiversity department and the relevant TLAs. The parties agree to support biodiversity and optimise ecological health within the relevant territories. This is further confirmed and supported by agreeing pest control work and budgets in each KNE plan.

Formal pest management programmes with Wellington, Hutt, Upper Hutt and Porirua City Councils and with the Kapiti Coast District Council continued during the 2014/15 year. The direct costs for work undertaken on their land are generally equally shared between GWRC and the local authority.

Means of achievement

Undertake direct control of feral and unwanted cats by service delivery as part of the integrated pest management of KNE and other selected sites.

Actual performance

Feral and unwanted cats are actively managed in 19 KNE sites within the Wellington region. These sites are predominantly rural and in the Wairarapa, as the high number of domestic cats in urban KNE areas may be at risk from current control methods. GWRC also works in conjunction with TLA's and private landowners to manage feral and unwanted cat populations. Feral cats are the most persistent predator species under ongoing control, with consistent numbers captured in KNE management sites, with feral cats now being a region wide landscape pest.

Means of achievement

Work with communities to remove populations of stray or unwanted cats.

Actual performance

Individuals who wish to remove feral or stray cats from their own land are given advice on control options, offer of materials at cost price or referred to commercial pest management operators.

GWRC continues to strongly oppose the practice of private organisations and individuals trying to maintain colonies of de-sexed cats which are fostered while remaining in the wild. 'Managed' populations encourage support for unmanaged cat populations as well. Both continue to threaten the native wildlife of the region.

Means of achievement

Reduce densities of select Site-Led – biodiversity species (feral deer, feral goats, feral pigs) in KNE and TLA reserves.

Actual performance

GWRC employ professional hunters to control ungulates in a number of KNE sites within our regional park and water supply catchment network. The total tally for the year was 236 feral goats, 120 feral pigs and 24 feral deer.

GWRC staff have undertaken feral goat control in several urban sites where animals were damaging public and private property adjacent to KNE, Regional Park or reserve areas. Problems often occur where residential properties border large tracts of reserve or farmland where feral goats or feral pigs are present.

Deer numbers continue to expand in the Wairarapa and parts of the Hutt Valley. The animals are seen as a welcome addition to some landowners while others express concern at damage to agricultural crops and bush remnants. Wellington has a large hunter population and the majority of deer management is undertaken by private hunting.

Complaints of pig damage to pasture and lawns increased considerably in the winter after the extended dry summer. Loan pig traps are proving effective around residential properties and farmland where pigs are present and not overly concerned with nearby human habitation.



Feral pig damage to lawns in Riverstone Terraces, Upper Hutt

Means of achievement

Facilitate the involvement of community groups, where appropriate.

Actual performance

GWRC has been involved with community groups undertaking pest control for many years. The management at several KNE sites benefits significantly from

the enthusiasm and resources of community groups. Groups have been carrying out plantings, pest control, ecological surveying and fundraising to support the management of KNE sites.

Pest control involvement continued in 2014/15 with groups participating at 23 sites and a further 28 private landowners doing their own control.

Means of achievement

Coordinate site management with other biodiversity initiatives, where possible.

Actual performance

KNE plans identify all management partners and relevant stakeholders and GWRC works collaboratively with these groups to coordinate site management.

Pest animal control is undertaken with volunteers to assist them in achieving a range of biodiversity based objectives. This continues in a wide range of TLA reserves and KNEs across the region.

Means of achievement

Monitor site recovery using a range of ecological indicators.

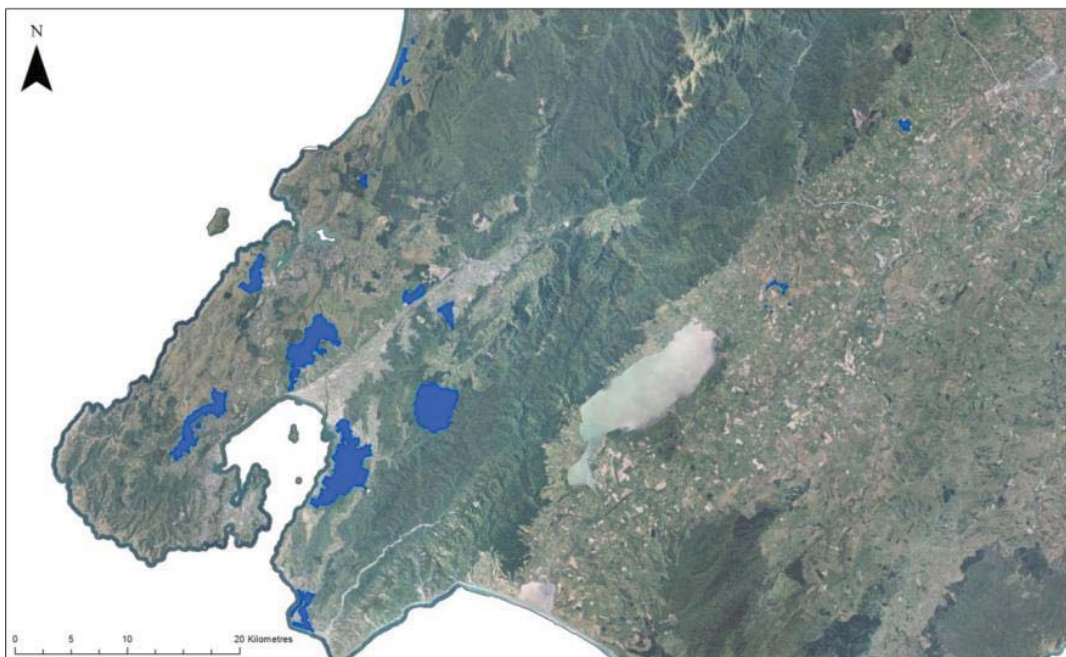
Actual performance

Monitoring is undertaken at a selection of sites with the aim of informing management across all sites. Rodent monitoring has been undertaken in 12 (KNE) sites in 2014/15. This on-going monitoring is carried out twice a year, in February and August. The monitoring is undertaken to inform pest control managers of the efficacy of the multi-species pest control regime for rats.

The baiting regime in the KNE sites aims to maintain the rat population below 5% in most of the reserves. However, there were unprecedented rat numbers in GWRC managed forests this year. Rat numbers in the Wainuiomata Mainland Island and East Harbour Northern Forest KNE sites operations were very high in the 2014 winter as a result of a beech and podocarp forest mast year. Rat tracking rose to 83% in the Wainuiomata Mainland Island and 26% in the East Harbour Mainland Island. Following control rat numbers gradually reduced to 19% tracking in May 2015 and 5% in August 2015, while in the adjacent non-treatment area tracking remained around 85%.

Possum monitoring also takes place before and after 1080 aerial drops as happened at Kaitoke Regional Park and Hutt Water Collection Area in 2014/15.

Some TLAs also contract the Environmental Science department to monitor birds at TLA reserves.



KNE sites where small mammal monitoring was carried out during 2014/15.

8. **Site-Led – biodiversity – possum**

Aim: To minimise the adverse impacts of possums in areas of ecological significance (outside of the KNE programme) and maintain accrued biodiversity and economic gains in the Wellington region at a cost of \$102,600

Annual cost: The cost for minimising the adverse impacts of possums in ecologically significant areas and maintaining current biodiversity and economic gains in the Wellington region was \$345,000

Means of achievement

Undertake direct control by service delivery in sites of ecological significance (outside of the KNE programme) in agreement with the landowner/occupier.

Actual performance

GWRC supported landowners who undertake possum control in QEII covenanted sites across the region. Bait, traps and advice is provided by Biosecurity staff, with the Biodiversity Department covering the cost of the equipment.

GWRC undertakes a range of advice and cost recovery possum and rat control work outside the KNE programme for local TLAs and private landowners.

Means of achievement

Provide a referral or cost recovery service to landowners/occupiers who require possum control.

Actual performance

GWRC provides assistance and advice on the management of possums to individual property owners, usually in urban or peri-urban situations, with materials at cost price. Assistance is usually with the intent that the occupier can self-manage any future possum problems. Nuisance possums can sometimes be managed in conjunction with/or as an extension to our existing possum control areas.

Several information talks and field days were attended across the region

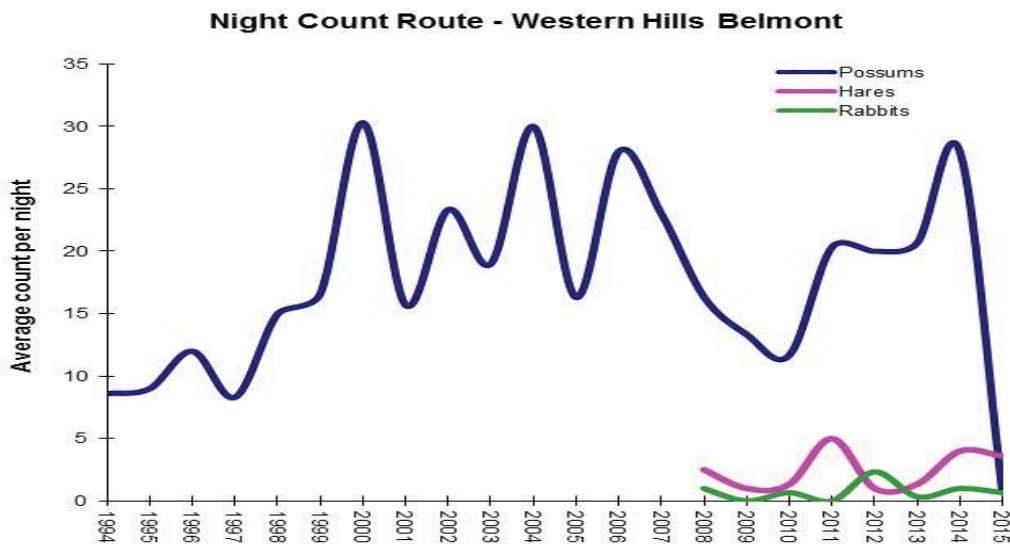
Means of achievement

Support research initiatives, including biological control.

Actual performance

Population trend monitoring for possums has been undertaken in Belmont Regional Park since 1994. The aim of the monitoring is to gain an understanding of possum activity at this site in the absence of a control programme. This year the average number of possums active over three fine nights decreased dramatically due to recent TBfree operations in the area as part of their Wellington buffer, with only two possums being seen on the first of the three nights.

Future monitoring of this site will need to be considered now TBfree New Zealand is controlling the possums in the area.



The average count of possums at Belmont Regional Park, Lower Hutt, over three nights counting at 25 stations

9. Site-Led - Mt Bruce (Pukaha) predator buffer

Aim: Complement the native flora and fauna restoration programme undertaken by the Department of Conservation (DOC), Rangitane o Wairarapa and the National Wildlife Trust at the Mount Bruce Scenic Reserve at a cost of \$52,200.

Annual Cost: The cost for the predator control programme within the buffer for the 2012/13 financial year was \$44,900.

The main objective of the Pukaha predator buffer is to maintain all predator numbers at very low levels within the buffer area and to reduce re-infestation by predators of the Mt Bruce Reserve. These control operations benefit a wide range of flora and fauna within the reserve. The focus is particularly on helping the survival of reintroduced endangered native bird species such as kaka, kokako and kiwi. The predator species targeted for control are possums, cats, mustelids, hedgehogs and rats.

Control is undertaken by kill-trapping and laying toxic baits in bait stations. The servicing of all equipment within the 2,200 hectare Pukaha predator control buffer was carried out by GWRC staff. Servicing occurred at monthly intervals. The trapping programme accounted for 79 feral cats, 17 ferrets, three stoats, 216 hedgehogs and 495 rats during the 2014/15 servicing year. A further unknown number of possums and rats were controlled by the use of brodifacoum in bait stations.

Possum monitoring occurred within the project during March 2015 to the National Trap Catch protocol, no possums were caught.

10. Site-Led – Regional Possum and Predator Control Programme (RPPCP)

Aim: To minimise the adverse impacts of possums in areas declared Bovine Tb free or in areas which are outside of the Tb Free New Zealand programme at a cost of \$944,000

Annual cost: The cost for minimising the adverse impacts of possums in the RPPCP areas of the Wellington region was \$846,000

Means of achievement

- (i) Address the adverse impacts of possums in bovine Tb free areas for catchment functions, biodiversity and economic prosperity.
- (ii) Maintain a possum residual trap catch (RTC) of 5% or lower across the 15,500 ha of the Wellington region which has been declared bovine Tb free.
- (iii) Commence possum control in areas not included within the Tb Free New Zealand programme.

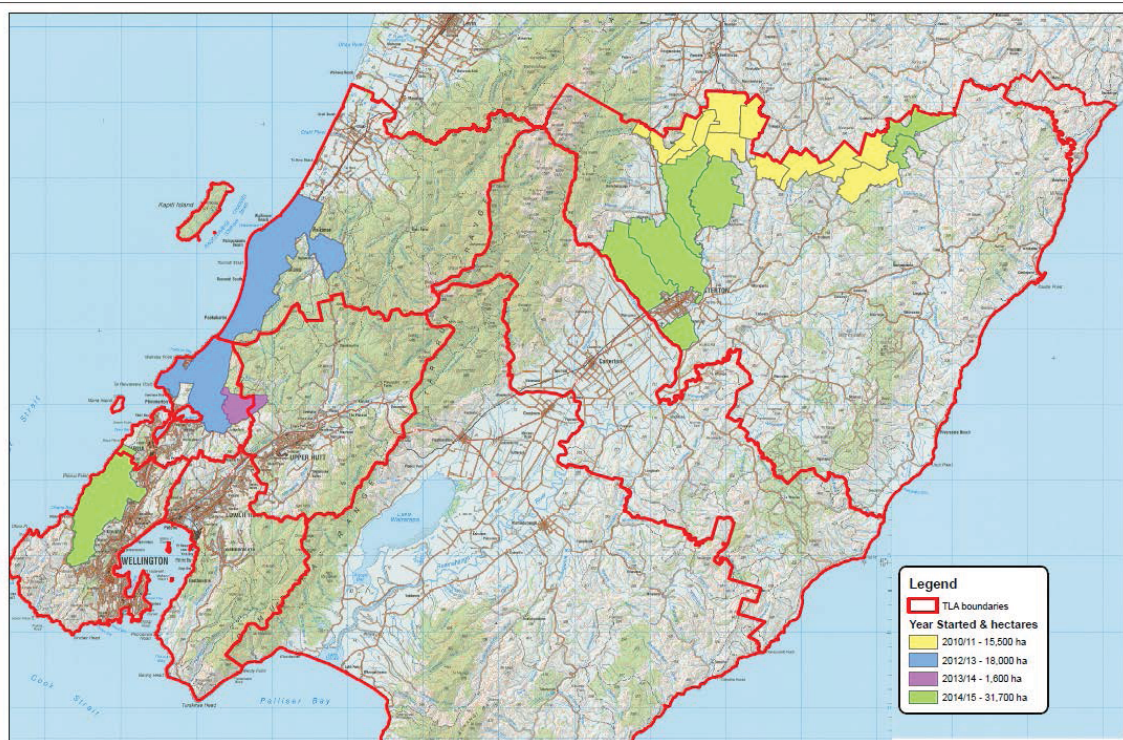
Actual performance

The 2014/15 Regional Possum and Predator Control Programme (RPPCP) for the Wellington Region covered approximately 70,200 ha including 2,200 ha that are part of the Mt Bruce (Pukaha) mainland island predator buffer. The programme included 42,200 ha declared free of bovine Tb and control of a further 28,000 ha in areas which have never been included within the National Strategy for Bovine Tb vector control programme (administered by TBfree New Zealand).

During the 2014/15 year, control was undertaken within 15,500 ha of North Wairarapa and included maintenance and re-baiting of all permanent bait stations. Very low possum numbers were maintained in ten of the 12 strata with monitoring results of RTC 3% or less. Two blocks (2,518 ha) exceeded desired performance target of 5% RTC. In the Masterton district new RPPCP work commenced over 24,500ha declared recently free of bovine Tb. In four new projects, the RTC results were under 3.0%, two others exceeded 5% and the remaining project was not monitored.

Maintenance control was undertaken over 11,500 ha of the Kapiti district and achieved excellent reduction of possum numbers (RTC under 1.0%). Work undertaken within Porirua City included the Porirua project (7,700 ha) which achieved a sub 2.0% RTC and the Moonshine project (1,600 ha) had a 7% RTC.

During 2014/15 the programme moved into Wellington City and control within the Ohariu project (7,250 ha) commenced.



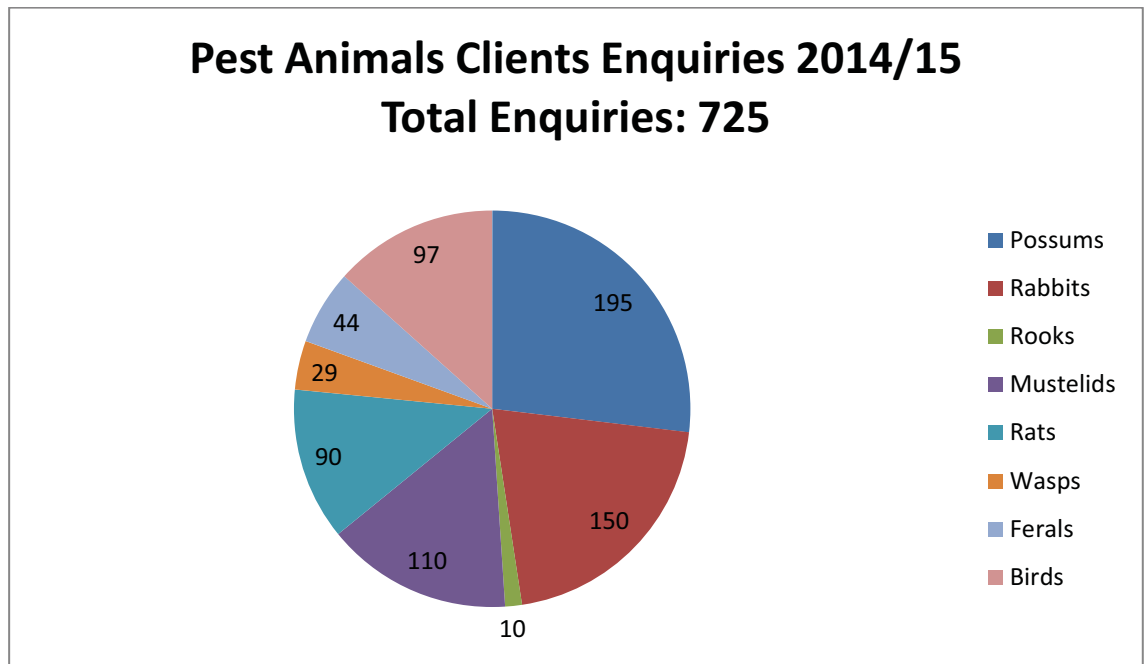
Regional Possum Predator Control Programme 2014-15

1:360,000
Date: 23/09/2015

11. Public enquiries

Responding to public enquiries is a significant focus of the Biosecurity department. To ensure effective and timely action a client response database is maintained. The database holds historical information on an area or pest and enables GWRC to manage responses efficiently, to plan the level of control required, and to assess the effectiveness of control methods.

This year we received and processed 725 public pest animal related enquires.



Part Two

Pest Plants

12. Surveillance species

Aim: To determine the distribution and means of control for Regional Surveillance pest plants within the Wellington region at a cost of \$197,700

Annual cost: The cost of managing Surveillance plants throughout the region during 2014/15 was \$217,100

Means of achievement

Identify new sites of Surveillance pest plants by GWRC staff, the public, or through the Surveillance programme.

Actual performance

There are 23 Surveillance species listed in the RPMS. To date only the 11 species below have been discovered in the Wellington region.

This year, only one new site of a Surveillance species was discovered (Asiatic knotweed). This brings the total number of Surveillance sites to 319. The majority of the sites were found when staff surveyed around known sites of Total Control species. Further survey work is required around many of these sites to establish the full distribution of the species in the region.

Plant name	Number of sites
African fountain grass	2
Asiatic knotweed	32
Australian sedge	1
Bomarea	52
Chilean flame creeper	7
Chocolate vine	190
Nassella tussock	3
Purple loosestrife	16
Senegal tea	10
Spartina	3
White edged nightshade	3
Total:	319

Number of sites of Surveillance species in the Wellington region

Means of achievement

Undertake a control trial programme on selected Regional Surveillance pest plants within the region.

Actual performance

The control trial programme on selected Surveillance species in the RPMS has continued this year. Asiatic knotweed and bomarea are two species that are

known to be difficult to control and there are enough sites of them to undertake meaningful trials. Control work continues on sites of purple loosestrife, spartina and Senegal tea to gather control information. The results of these trials will assist with the future management of these species.

Means of achievement

Use biological control agents where appropriate and support relevant biological control research initiatives.

Actual performance

GWRC is part of the National Biological Control Collective (NBCC) along with a number of other Councils, DOC and Landcare Research. The NBCC is currently funding research into biocontrol agents for a range of pest plants including some Surveillance species.

Means of achievement

Provide information and publicity to enhance public awareness of the threat posed by Surveillance species to the region.

Actual performance

A factsheet for each Surveillance species can be found on the GWRC website.

The Ministry for Primary Industries (MPI) continued their funding of the Check, Clean and Dry (CCD) programme for the seventh consecutive year. The aim of the programme is to raise public awareness of didymo and other freshwater pest species and the risk these pose to our waterways. The Regional Advocate engages with the public by targeting high use areas of our rivers and attending specialist outdoor events. Information is given to relevant organisations, businesses and clubs.

13. Total Control species

Aim: To control all Total Control species within the Wellington region at a cost of \$330,400

Annual cost: The cost of managing Total Control plants throughout the region during 2014/15 was \$275,300

Means of achievement

Identify new sites of Total Control species through incidental reports by GWRC staff, the public, or through the Regional Surveillance programme.

Actual performance

This year, 19 new sites of Total Control species were discovered (two Bathurst bur, eight blue passionflower, three climbing spindleberry, two moth plant and four woolly nightshade). This brings the total number of Total Control sites to 1,108. The majority were found while staff surveyed around active Total Control sites.

Plant name	Number of sites
African feathergrass	104
Bathurst bur	12
Blue passionflower	407
Climbing spindleberry	62
Eelgrass	91
Moth plant	201
Perennial nettle	89
Saffron thistle	9
Woolly nightshade	133
Total:	1108

Number of sites of Total Control species in the Wellington region

Means of achievement

Undertake direct control by service delivery of all Total Control species at all known sites within the region on an annual basis.

Actual performance

The majority of the Total Control sites were inspected at least once during the year and any plants found were controlled. Unfortunately inclement weather meant the site of perennial nettle on Matiu Somes Island was not sprayed this year. Some sites required multiple inspections due to the plants reproductive capabilities.

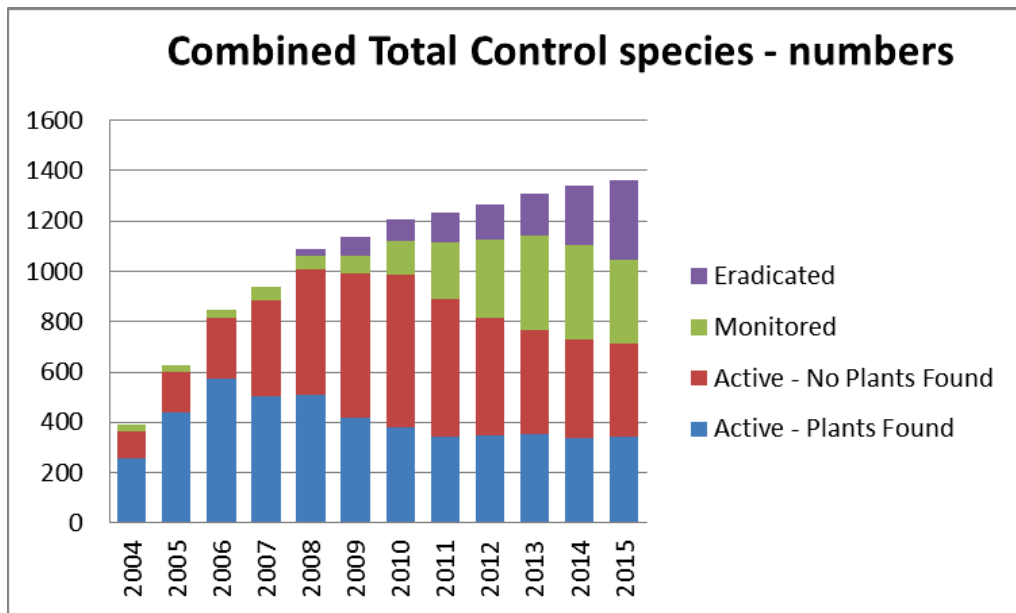
Good progress is being made with current sites of Total Control species with 314 determined eradicated (nine years with no plants) and a further 324 being monitored (five years with no plants).

Means of achievement

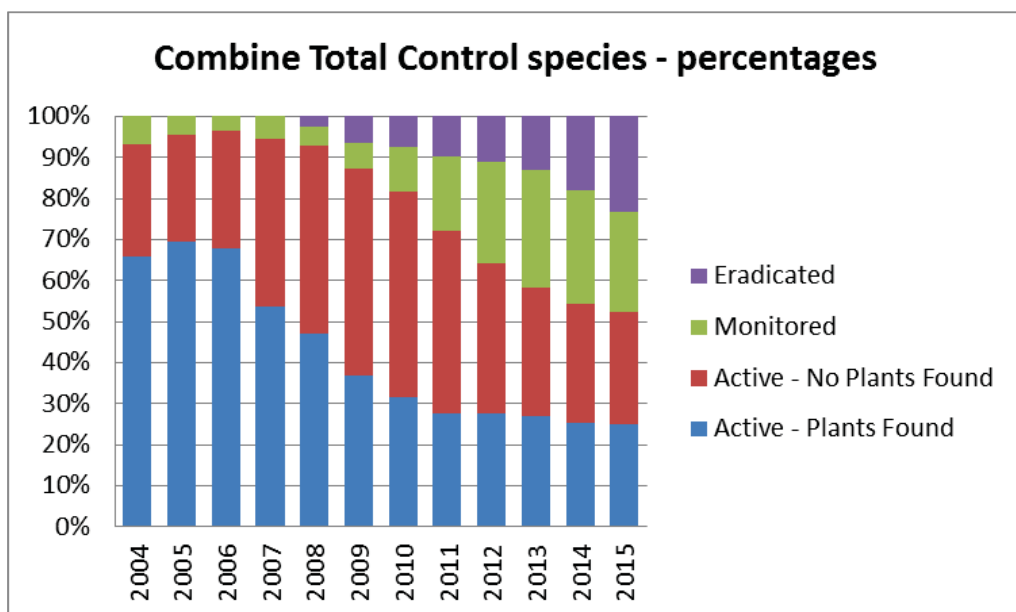
Annually inspect all plant outlets and markets within the region for the sale and/or propagation of Total Control species.

Actual performance

GWRC inspected 39 retailers in 2014/15 to ensure compliance with the Strategy rules for pest plants. With an increased move to online retailing Pest Plants staff monitored Trade Me websites for pest plant sales. All plant outlets and markets inspected were clear of banned species.



The status of Total Control species in the Wellington region



Status of Total Control species (%)

Means of achievement

Use biological control agents where appropriate, and support relevant biological control research initiatives.

Actual performance

The National Biocontrol Collective is currently researching biocontrol agents for two Total Control species; moth plant and woolly nightshade. The woolly nightshade lace bug (*Gargaphia decoris*) was released in 2010, and has established in some areas of the country, causing significant damage to plants. The lace bug is yet to be released in the Wellington region.

The moth plant beetle (*Colaspis argentinensis*) was approved for release in 2011. Landcare Research is working on importing and mass rearing beetles for releases.

14. Containment species

Aim: To control all Containment species outside the Containment zones within the Wellington region at a cost of \$148,000

Annual cost: The cost of managing Containment plants throughout the region during 2014/15 was \$144,200

Means of achievement

Undertake direct control by service delivery of Containment species outside the Containment zone within the region on an annual basis.

Actual Performance

Biosecurity staff continued to inspect and control all known boneseed sites outside areas determined as containment zones. The programme has made considerable progress on reducing the number of boneseed plants setting seed, often working in difficult terrain and under demanding conditions. Control areas are located in coastal Wairarapa, Titahi Bay and on Wellington's south coast.



Aerial boneseed control on the coastal escarpment Ngawi, South Wairarapa

All known sites of sweet pea shrub and evergreen buckthorn outside the containment areas were controlled.

Means of achievement

Provide information and publicity to enhance public awareness of the threat posed by the Containment species to the region.

Actual performance

The GWRC website includes information on all Containment species. Boneseed signage remains in place in areas of coastal Wairarapa.

A factsheet on boneseed was produced and distributed to the public when surveying coastal villages in the Wairarapa. This was also used as a poster to inform the public of the threat posed by boneseed.

Means of achievement

- (i) Identify new sites of Containment species outside the Containment zones through incidental reports by GWRC staff, the public, or through the Regional Surveillance programme.

Actual performance

Boneseed, evergreen buckthorn and sweet pea shrub were controlled whenever they were found outside the containment zones. This mainly occurred on dunes and escarpment ecosystems.

Means of achievement

- (ii) Use biological control agents where appropriate, and support relevant biological control research initiatives.

Actual performance

The boneseed leaf roller caterpillar (*Totrix s.l.sp. "chrysanthemoides"*) has been released in the region but failed to establish due to predation by ants and wasps.

15. 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 \$368,600

Annual cost: The cost of managing Site-led boundary control plants throughout the region during 2014/15 was \$301,000

Means of achievement

Action complaints received to comply with the RPMS rules.

Actual performance

Staff responded to all complaints and public requests for inspections this year.

Direct compliance action by staff is often the most cost effective way to deal with a complaint from a member of the public.

Means of achievement

Use biological control agents where appropriate, and support relevant biological control research initiatives.

Actual performance

GWRC is part of the National Biological Control Collective which continues research into finding suitable biocontrol agents for a number of Site-Led species including: banana passionfruit, nodding thistle, old man's beard and wild ginger.

Landcare Research is continuing trials of a banana passionfruit foliage-feeding moth (*Pyrausta norella*) and a stem-boring moth (*Odonna passiflorae*). Host testing for the wild ginger weevil (*Tetratopus sp.*) and ginger fruit fly (*Meroglyphus dimorphus*) is progressing well.

Three beetles which attack tradescantia have been released in the region. The tradescantia leaf beetle (*Neolema ogloblini*), tradescantia tip beetle (*Neolema abbreviata*) and the tradescantia stem beetle (*Lema basicostata*) each target a different part of the plant to systematically weaken it. At this stage it is too early to determine whether they have established or what impact they are having in the region.

16. 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 \$971,500

Annual cost: The cost to GWRC to manage KNE species was \$1,106,400

Means of achievement

Ensure KNEs are legally protected into perpetuity.

Actual performance

Most KNEs treated during 2014/15 included some legally protected or publically owned land. This includes Territorial Authority Reserves, QEII covenants, or contained legally protected sites within the management area.

Means of achievement

Undertake direct control by service delivery of pests identified in the management plan for KNEs and Reserves.

Actual Performance

Pest plant control work was undertaken in 63 KNE sites. Work was also carried out collaboratively with DOC on the Wairarapa Moana wetland project.



Aerial control of alders and willows at JK Donald Reserve, Lake Wairarapa

Means of achievement

Co-ordinate site management with other biodiversity initiatives where possible.

Actual performance

In addition to the work that GWRC completed on KNE and Reserves this year, staff worked on 14 other joint biodiversity initiatives with DOC, QEII Trust and TLAs (KCDC and HCC).



Large areas of invasive willows have been successfully controlled at Boggy Pond in conjunction with DOC.

Means of achievement

Monitor site recovery using a range of ecological indicators.

Actual performance

Methods for the effective monitoring of control site recovery are the subject of national research efforts. Regional councils, DOC, Ministry for the Environment and science providers are developing a model which will enable nationally consistent and affordable reporting on biodiversity.

Means of achievement

Manage external pressures that are inconsistent with KNE and reserve management objectives.

Actual performance

KNE plans systematically identify all threats to indigenous biodiversity and make available resources to targeted pest control and manage external pressures.

GWRC made all reasonable efforts to mitigate threats to restoration areas such as livestock access, rubbish and garden waste dumping, boundary encroachment and pest animal incursions. Efforts are made to raise awareness on such issues and referrals are made to relevant internal and external partners when necessary.

17. Biological control

Staff worked with eight different species of biocontrol agents during the year. This work included releasing and transferring agents, and monitoring their establishment and spread. There were 164 transfers of the green thistle beetle (*Cassida rubiginosa*) made around the region this year. This agent is establishing readily in the Wairarapa with some plants having upwards of 300 beetles on them. These numbers seem to be causing significant damage to Californian thistle at some sites. The beetles also appear to be very mobile, with some being found many kilometres away from the original release site.



Green thistle beetle feeding on Californian thistle foliage. Photo: J Bythell

There were 454 transfers of broom gall mite (*Aceria genistae*) made this year, and a number of previously released sites are showing very obvious 'galls' on broom.

There were two transfers of the buddleia leaf weevil (*Cleopus japonicus*) made in the region. Results from the monitoring of sites continue to be promising, with high levels of defoliation and even death occurring in some plants.

18. National Interest Pest Response Programme (NIPR)

GWRC is part of the MPI led national programme to eradicate Manchurian wild rice (MWR) and Cape tulip from New Zealand. GWRC delivers pest management for these two species on behalf of MPI.

There is only one area of MWR in the region at the Te Harakeke swamp in Waikanae. The survey of the area resulted in two new infestations discovered outside of the area controlled in previous years. All plants were controlled using a helicopter and staff on the ground to get areas close to housing. Infestations continue to be very difficult to control, due to changes in water level, accessibility and infestations being obscured by vegetation.

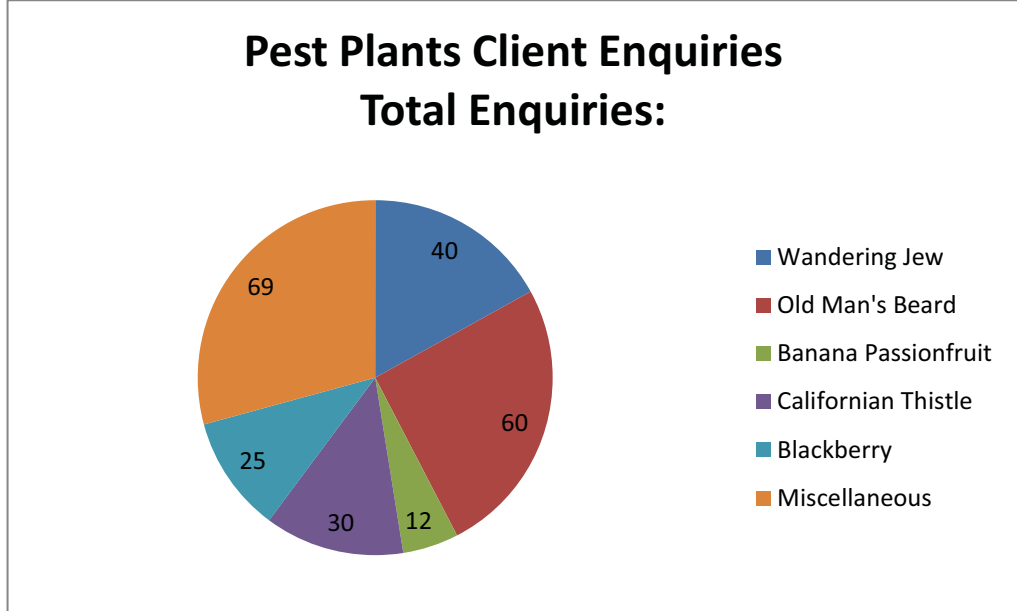


One of two new sites of Manchurian wild rice found this year. It was found growing outside areas usually surveyed by staff.

There are two active Cape tulip sites in the region. GWRC staff inspected these sites on two separate occasions and removed one plant. At one of the sites a large tree that was impeding control efforts was removed to allow for future control.

19. Public enquiries

This year we received and processed 236 public pest plant related enquiries.



Appendix 1 – Biocontrol agents released in the Wellington Region

Agent species name	First released	Total number of known sites	Overall agent status
Boneseed agents			
Boneseed leaf roller	2007	8	suspect failure
Broom agents			
Broom gall mite	2009	400+	widespread
Broom leaf beetle	2009	3	uncertain
Broom psyllid	1995	400+	widespread
Broom seed beetle	1994	200+	widespread
Broom shoot moth	2008	3	uncertain
Buddleia agents			
Buddleia leaf weevil	2007	100+	widespread
Gorse agents			
Gorse colonial hard shoot moth	2002	4	failed
Gorse pod moth	1997	abundant	widespread
Gorse soft shoot moth	2007	4	uncertain
Gorse spider mite	1989	abundant	widespread
Gorse thrips	1990	abundant	widespread
Mistflower agents			
Mistflower gall fly	2001	2	established
Mistflower fungus	2009	1	established
Old man's beard agents			
Old man's beard leaf fungus	1997	4	failed
Old man's beard leaf miner	1995	abundant	widespread
Old man's beard sawfly	2002	2	failed
Ragwort agents			
Cinnabar moth	2006	abundant	widespread
Ragwort plume moth	2012	3	established
Ragwort flea beetle	1988	abundant	widespread
Thistle agents			
Californian thistle flea beetle	1994	2	failed
Californian thistle gall fly	2006	1	failed
Californian thistle leaf beetle	1993	3	failed
Californian thistle stem miner	2010	2	uncertain
Green thistle beetle	2008	177	widespread
Nodding thistle receptacle weevil	1972	abundant	widespread
Nodding thistle crown weevil	1990	4	established
Nodding thistle gall fly	2005	2	established
Scotch thistle gall fly	2005	52	established
Tradescantia agents			
Tradescantia leaf beetle	2011	6	established
Tradescantia stem beetle	2012	5	uncertain
Tradescantia tip beetle	2013	5	uncertain

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

For more information, contact the
Wellington Regional Council:

Masterton office
34 Chapel Street
PO Box 41
Masterton 5840
T 06 378 2484
F 06 378 2146

Upper Hutt office
1056 Fergusson Drive
PO Box 40847
Upper Hutt 5140
T 04 526 4133
F 04 526 4171

Follow the Wellington
Regional Council



pest.plants@gw.govt.nz
pest.animals@gw.govt.nz
www.gw.govt.nz



Please recycle
Produced sustainably

GW/BIO-G-15/152
October 2015