



GREATER WELLINGTON REGIONAL
PEST MANAGEMENT PLAN
2019–2039



Cover shot:

*Titipounamu (Rifleman) translocation from a Greater Wellington owned and protected location, Wainuiomata Mainland Island, to Zealandia - March 2019. This was made possible thanks to 15 years of pest control efforts in the area.
© Photograph by Chris Gee.*

GREATER WELLINGTON REGIONAL PEST MANAGEMENT PLAN 2019–2039

I hereby certify that this is a true and correct copy of the Greater Wellington Regional Pest Management Plan, made on 2 July 2019 being the date the common seal of the Greater Wellington Regional Council is fixed to the plan in accordance with Section 77(1) of the Biosecurity Act 1993. The Greater Wellington Regional Pest Management Plan will be publicly notified on 2 July 2019 and commences on 2 July 2019.

The Common Seal of the Greater Wellington Regional Council was fixed in the presence of:



Nigel Corry
Deputy Chief Executive,
General Manager, People and Customer



Greg Campbell
Chief Executive

2 July 2019

UPUKO KŌRERO

TABLE OF CONTENTS

Kupu Whakataki			
Foreword	1		
Wahanga Tuatahi – Whakakaupapa			
Part One – Plan establishment	2		
1 Kupu Arataki			
Introduction	3		
1.1 Purpose	3		
1.2 Coverage	4		
1.3 Duration	4		
1.4 Plan review	4		
2 He rauhanga korero ā-mahere, ā-ture, ā-rautaki			
Planning and statutory background	5		
2.1 Strategic background	5		
2.1.1 Relationships with mana whenua and Māori	5		
2.1.2 Greater Wellington’s biosecurity framework	6		
2.1.3 Greater Wellington’s Biodiversity Strategy	6		
2.1.4 Key Native Ecosystem programme	7		
2.1.5 Regional Predator Control Programme	8		
2.1.6 Greater Wellington regional parks and administered land ...	8		
2.1.7 Greater Wellington and the QEII National Trust	8		
2.1.8 Regional Policy Statement	8		
2.1.9 Natural Resources Plan	9		
2.1.10 Marine biosecurity	9		
2.1.11 Climate change	9		
2.1.12 Biosecurity framework outside Greater Wellington	10		
2.1.13 Predator Free Wellington	10		
2.2 Legislative background	12		
2.2.1 Biosecurity Act 1993	12		
2.2.2 Resource Management Act 1991	13		
2.2.3 Local Government Act 2002	13		
2.2.4 Wild Animal Control Act 1977 (and Wild Animal Control Amendment Act 1997) and the Wildlife Act 1953	13		
2.2.5 Other legislation	14		
2.3 Relationship with other pest management plans ..	14		
2.3.1 Biosecurity 2025 Direction Statement	15		
2.3.2 Predator Free 2050	15		
2.3.3 National Pest Plant Accord	16		
2.3.4 National Pest Pet Biosecurity Accord	16		
3 Kawenga me ngā herenga			
Responsibilities and obligations	17		
3.1 The management agency	17		
3.2 Responsibilities of owners and/or occupiers	17		
3.3 Crown agencies	17		
3.4 Territorial authorities	18		
3.5 NZ Transport Agency	18		
3.6 Road reserves	18		
3.7 KiwiRail	18		
Wahanga Tuarua – Whakahaere Riha			
Part Two – Pest management	20		
4 Whakamātua Kaiao			
Organism status	21		
4.1 Organisms declared as pests	21		
4.2 Other harmful organisms	23		
4.3 Unwanted organisms	23		
4.4 Invasion curve	24		
4.5 Control methods and animal welfare issues	24		
5 Tarāwaho whakahaere kaupapa koiora orotā			
Pest management framework	25		
5.1 Pest management programmes	25		
5.2 Objectives	25		
5.3 Principal measures to manage pests	26		
5.4 Alternative pest management arrangements	27		
5.5 Rules	27		
6 Whakamārama i ngā hōtaka Orotā me ngā mahere			
Pest descriptions and programmes	28		
6.1 Pests to be managed under exclusion programmes	28		
6.1.1 Alligator weed (<i>Alternanthera philoxeroides</i>)	29		
6.1.2 Chilean needle grass (<i>Nassella neesiana</i>)	29		
6.1.3 Nassella tussock (<i>Nassella trichotoma</i>)	30		
6.1.4 Wallaby (<i>Macropus rufogriseus, M. eugenii</i>)	30		
6.2 Pests to be managed under eradication programmes	32		
6.2.1 Moth plant (<i>Araujia hortorum</i>)	32		
6.2.2 Senegal tea (<i>Gymnocoronis spilanthoides</i>)	33		
6.2.3 Spartina (<i>Sporobolus anglicus, S. alterniflorus</i>)	33		
6.2.4 Velvetleaf (<i>Abutilon theophrasti</i>)	34		

6.2.5	Woolly nightshade (<i>Solanum mauritianum</i>).....	34	8	Te mātaītanga orotā	
6.2.6	Rook (<i>Corvus frugilegus</i>).....	36		Monitoring	76
6.3	Pests to be managed under progressive containment programmes.....	38	8.1	Measuring what the objectives are achieving.....	76
6.3.1	Purple loosestrife (<i>Lythrum salicaria</i>).....	38	8.2	Monitoring the management agency’s performance	78
6.3.2	Wilding conifers – European larch (<i>Larix decidua</i>), Douglas fir (<i>Pseudotsuga menziesii</i>) and pine species (<i>Pinus spp.</i>)	40	8.3	Monitoring Plan effectiveness.....	78
6.4	Pests to be managed under sustained control programmes.....	44	Wahanga Tuatoru – Ngā Tikanga		
6.4.1	Blue passionflower (<i>Passiflora caerulea</i>).....	45	Part Three – Procedures.....		
6.4.2	Boneseed (<i>Chrysanthemoides monilifera</i>)	47	9	Te mana uhia	
6.4.3	Climbing spindleberry (<i>Celastrus orbiculatus</i>).....	49		Powers conferred	80
6.4.4	Eelgrass (<i>Vallisneria spiralis</i> , <i>V. gigantea</i>).....	50	9.1	Powers under Part 6 of the Biosecurity Act	80
6.4.5	Feral rabbit (<i>Oryctolagus cuniculus</i>).....	52	9.2	Powers under other sections of the Act	81
6.4.6	Wasps – common wasp (<i>Vespula vulgaris</i>), German wasp (<i>V. germanica</i>), Australian paper wasp (<i>Polistes humilis</i>) and Asian paper wasp (<i>P. chinensis</i>)	54	9.3	Power to issue exemptions to plan rules	81
6.5	Pests to be managed under site-led programmes ...	56	10	Tuku tahua	
6.5.1	Banana passionfruit (<i>Passiflora mixta</i> , <i>P. mollissima</i> , <i>P. tripartita</i>).....	57		Funding.....	82
6.5.2	Cathedral bells (<i>Cobaea scandens</i>)	58	10.1	Introduction.....	82
6.5.3	Old man’s beard (<i>Clematis vitalba</i>).....	58	10.2	Funding sources and reasons for funding.....	82
6.5.4	European hedgehog (<i>Erinaceus europaeus occidentalis</i>)...61		10.3	Anticipated costs of implementing the Plan	82
6.5.5	Feral deer – fallow, red and sika (<i>Dama dama</i> , <i>Cervus elaphus</i> , <i>C. nippon</i>).....	62	10.3.1	General rate and revenue	83
6.5.6	Feral goat (<i>Capra hircus</i>).....	63	10.3.2	Recovery of direct costs	83
6.5.7	Magpie (<i>Gymnorhina tibicen</i> , <i>G. tibicen hypoleuca</i>).....	65	11	Rārangi Pukapuka	
6.5.8	Mustelids – ferret (<i>Mustela furo</i>), stoat (<i>M. erminea</i>) and weasel (<i>M. nivalis</i>).....	66		References.....	84
6.5.9	Pest cat (<i>Felis catus</i>).....	68	Ngā ĀpitiHanga		
6.5.10	Possum (<i>Trichosurus vulpecula</i>).....	70	Appendices.....		
6.5.11	Rat – Norway rat (<i>Rattus norvegicus</i>) and ship rat (<i>R. rattus</i>).....	73	Appendix 1		
7	Nga hua o te whakatīnātanga o te wahanga		Glossary of terms..... 85		
	Actual or potential effects of implementation.....	75	Appendix 2.....		
7.1	Effects on Māori	75	Harmful organisms..... 89		
7.2	Effects on the environment	75	Appendix 3.....		
7.3	Effects on overseas marketing of New Zealand products	75	Acronyms..... 92		
			Appendix 4.....		
			Participants in the New Zealand biosecurity pest management system – roles and responsibilities		
			Appendix 5.....		
			NRP Maps..... 93		



Members of the public were invited to join us on a rare guided walk through Wainuiomata Mainland Island as part of our 2018/19 summer events programme. The area is normally closed to public access.

KUPU WHAKATAKI

FOREWORD

We are very pleased to introduce the Greater Wellington Regional Pest Management Plan 2019-2039. After a year of discussions, with the public, organisations, volunteer groups and others, we're proud of the result.

The Plan is an outline for how to manage or eradicate certain animal and plant pest species, and will guide us through the next twenty years of biosecurity in the Wellington region. It is the result of a large collaborative effort.

There has been a clear focus throughout the Plan's development on the results we want to achieve: reversing the loss of biodiversity, particularly in certain critically valuable areas (Key Native Ecosystem sites and managed territorial authority reserves), reducing the impact of plant and animal pests, supporting a regionally co-ordinated approach to pest management with other individuals and organisations, and making considerable areas of the region pest-free – starting with the Predator Free Wellington Operation in Miramar. We have stayed true to these four ambitious goals.

Pest management is a very important core function of Greater Wellington. Over 20 years of pest control our excellent teams have made a big difference, and have a great reputation across the region and beyond for getting the job done.

We want to sincerely thank our experienced biosecurity officers for the huge amount of work undertaken to complete this Plan, and the support they gave to the Panel. With their help, we now have a Plan that will meet current and future pest-management challenges, while protecting and improving our native flora and fauna.

We committed to a comprehensive review of our previous pest strategy to see whether it was fit for purpose. This involved going out to the public with a draft plan that focused on improving indigenous biodiversity and safe food production.

We had over 134 submissions and 15 of these were heard by the panel. The process was robust and submissions certainly had an impact. Changes included feral deer and wilding conifers recognised as having a pest status. We also now use the term pest cats (ie, when not owned by anyone) to enable control in Key Native Ecosystem sites and territorial authority reserves (see page 7).

A more difficult part of the process was the cost benefit analysis that was required under the Biosecurity Act for the plan. While there were requests to move many plants and animals we had listed as harmful organisms in the draft plan over into the pest category, under the legislation they had to meet a cost benefit analysis threshold (defined under the Biosecurity Act).

However, if the situation changes in the future for a harmful plant or animal species, the Plan is flexible enough for there to be a targeted review of an organism's status.

Our resources have to be applied as efficiently and effectively as possible, which we believe this Plan achieves. Animals and plants categorised as pests are included under five management programmes, together with four principal measures to guide management.

This plan will continue to build on the accomplishments already achieved in our region, and the improved social and economic wellbeing of our communities. The success of the plan will depend on enthusiastic participation by the community, which is why we're putting out new advice alongside this plan – see our website at www.gw.govt.nz/biosecurity

We all have a part to play in this. Whether it's having a trap on your property, getting rid of pest plants in your garden, or letting us know when you see a pest that shouldn't be where it is! It's up to us all to safeguard our environment.



A handwritten signature in black ink.

Chris Laidlaw,
Greater Wellington Regional Council Chair

and



A handwritten signature in blue ink.

Jenny Brash,
Regional Councillor and Chair of the
hearings panel for the Plan, June 2019

WAHANGA TUATAHI – WHAKAKAUPAPA PART ONE – PLAN ESTABLISHMENT



One of the new UBCO 2x2 electric farm bikes the team use to get around the region and carry out pest control.

1 KUPU ARATAKI INTRODUCTION

Greater Wellington has a long history of leadership in pest management in the Wellington Region. The first regional pest management strategy was developed in 1996, and following its review Greater Wellington in 2001 implemented the Greater Wellington Regional Pest Management Strategy 2002-2022.

Pest management in the region over the last 20 years has achieved some significant improvements to the native biodiversity, and social and economic wellbeing of our region. Having almost 200,000ha under long-term pest animal control keeps the impact of possums and other pests in the region under check. This extensive pest management has resulted in the recovery of large areas of native bush. Flowering rata is a welcome sight over the Wellington Region hills again, native mistletoe is common, numbers of native birds are rising and residents in Greater Wellington's bush-clad areas can enjoy the morning chorus.

This Plan builds on this long legacy.

1.1 Purpose

The purpose of the Greater Wellington Regional Pest Management Plan 2019–2039 (the Plan) is to outline a framework for managing or eradicating specified organisms efficiently and effectively in the Wellington Region. Doing so will:

- Minimise the actual or potential adverse or unintended effects associated with these organisms
- Maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach
- Reverse loss of biodiversity in the managed high-value biodiversity areas in the region over the next 20 years
- Make a pest-free status of a considerable area of the Wellington region a reality

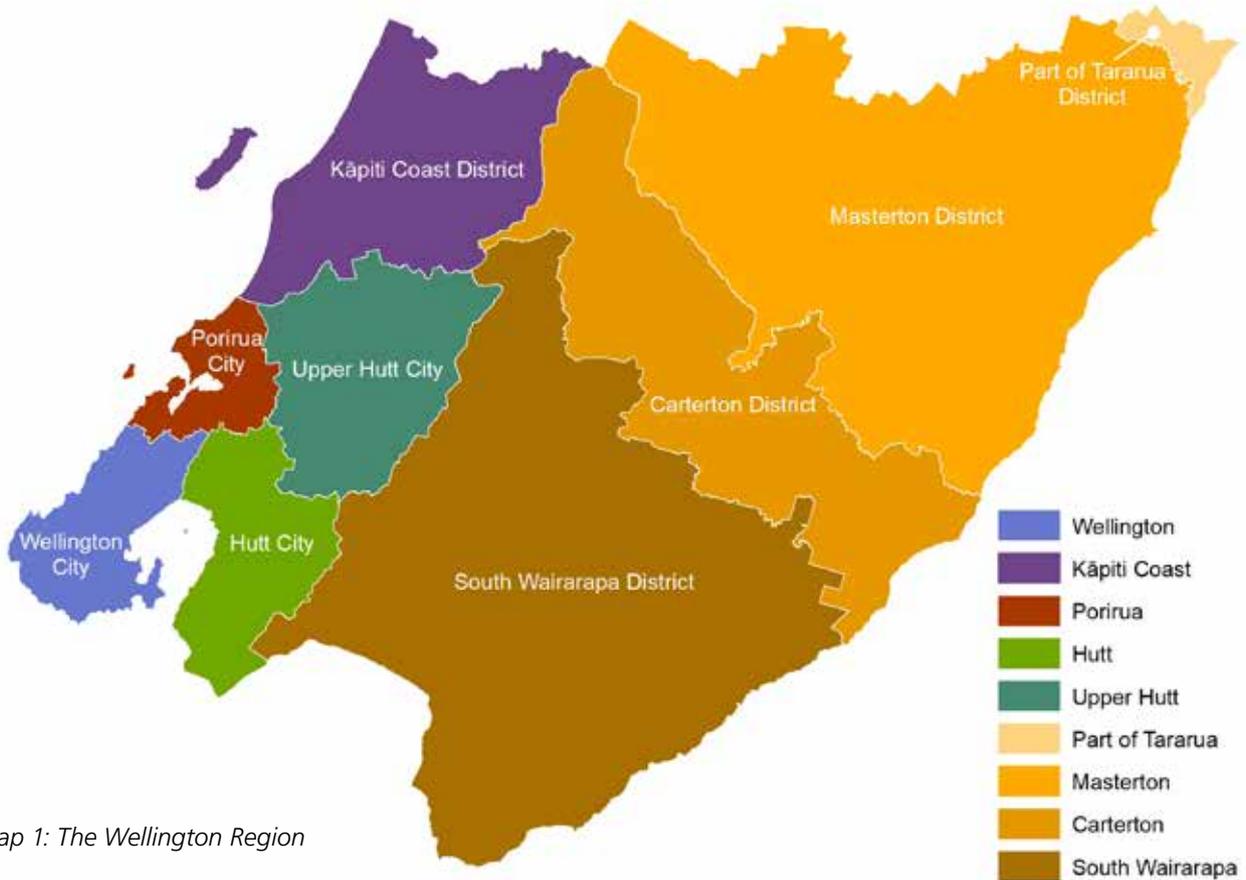
There are many organisms in the Wellington Region that are considered undesirable or a nuisance. The Plan only addresses pests where voluntary action is insufficient due to the nature of the pest, or the related costs and benefits of individual action or inaction. The Biosecurity Act 1993 (the Act) has prerequisite criteria that must be met to justify such intervention. This Plan identifies those organisms classified as pests.

Once operative, the Plan will empower Greater Wellington to exercise the relevant advisory, service delivery, regulatory and funding provisions available under the Act to deliver the specific objectives identified in Part Two (Pest management).

1.2 Coverage

The Plan will operate within the administrative boundaries of the Wellington Region (land, waterways and sea) covering a total land area of 813,000ha on the southern end of the North Island. The northern boundary is defined by the catchments of the Waitohu Stream and Ōtaki River on the western side of the Tararua Range,

by the Whareama and Mātaikona River catchments, and by the headwaters of the Ruamāhanga River on the eastern side (Map 1). The Horizons Regional Council borders the northern boundary of the Wellington Region for its entire length.



Map 1: The Wellington Region

1.3 Duration

The Plan will take effect on the date it becomes operative as a Regional Pest Management Plan (RPMP) under section 77 of the Act. It is proposed to remain in force for a period of 20 years from that date.

The Plan may cease at an earlier date if Greater Wellington declares by public notice that the Plan has achieved its purpose. It may also cease at an earlier date if, following a review, it is revoked.

1.4 Plan review

Greater Wellington may review the Plan or any part of it if it believes that circumstances or management objectives have changed significantly (under the provisions of section 100D of the Act, minor reviews affecting part of the Plan can take place at any time).

Where the Plan has been in force for 10 years or more and has not been reviewed in the past 10 years, Greater Wellington must review the Plan in accordance with section 100D of the Act. A review may result in no change to the Plan, or may extend its duration.

A review may also be necessary if Greater Wellington or the Environment Court considers the Plan is inconsistent with any requirement of an operative National Policy Direction for Pest Management 2015 (NPD).

Greater Wellington can make minor amendments to the Plan without needing a review. Any minor amendment must not:

- (i) Significantly affect any person's rights and obligations
- (ii) Be inconsistent with the NPD

2 HE RAUHANGA KORERO Ā-MAHERE, Ā-TURE, Ā-RAUTAKI PLANNING AND STATUTORY BACKGROUND

2.1 Strategic background

This section describes the factors that influence why and how Greater Wellington manages pests in the Wellington Region. It includes plans, policies and activities that are

the responsibility of both Greater Wellington and external agencies.

2.1.1 Relationships with mana whenua and Māori

There are a number of legislative provisions and national and regional policy statements that describe the obligations of councils to mana whenua and Māori which impact directly or indirectly on the biosecurity framework.

Mana whenua and Māori make an important contribution to biosecurity. For mana whenua this includes involvement in biosecurity as an important part of exercising kaitiakitanga over their whenua. One specific purpose of an RPMP under the Biosecurity Act is to provide for the protection of the relationship between Māori and their ancestral lands, waters, sites, wāhi tapu and taonga, and to protect those aspects from the adverse effects of pests. Māori also carry out significant pest management through their primary sector economic interests and as land owners and/or occupiers.

Greater Wellington Regional Council's enduring collective partnership with mana whenua was first formalised

in 1993 through the Charter of Understanding. The existing relationship is recorded in the Memorandum of Partnership 2013, which is due for review in 2019. The partnership with mana whenua is built on the principles of participation in decision-making, articulation of values and aspirations, and the opportunity to build these across the many portfolios of Council. This partnership has been developing and influencing the way in which Council plans and implements across all facets of Council's work (Figure 1).

The partnership is led through the Ara Tahī leadership forum, which comprises Councillors and Greater Wellington's six mana whenua partners. The forum sets the strategic direction and priorities of mana whenua for the way we work. The partnership can be seen in action through mana whenua representation in Council committees, advisory groups, project teams and land management arrangements.



Figure 1: Greater Wellington's relationship with mana whenua and Māori

2.1.2 Greater Wellington’s biosecurity framework

Regional pest management sits within a biosecurity framework for the Wellington Region and is supported by a number of complementary policies and plans: Greater Wellington’s Biodiversity Strategy (the Strategy) and Key Native Ecosystem (KNE) programme, and the Wellington City Council’s “Our Natural Capital –

Wellington’s biodiversity strategy and action plan 2015”. Mana whenua as kaitiaki (guardians), the Department of Conservation (DOC), land owners and/or occupiers and the wider community, as either beneficiaries or exacerbators or both, complete the partnership.

2.1.3 Greater Wellington’s Biodiversity Strategy

The Strategy sets a framework that guides how Greater Wellington protects and manages biodiversity in the Wellington Region. It includes a vision, principles and goals that guide how Greater Wellington departments can contribute to generating better outcomes for biodiversity (Figure 2). The majority of organisms managed under this Plan are included because of the harm they cause to indigenous biodiversity. The Plan will contribute to achieving the vision and all three goals of the Biodiversity Strategy.

The Strategy’s overarching vision for biodiversity in the Wellington Region is that “healthy ecosystems thrive in the Wellington Region and provide habitat for native biodiversity”. This vision applies to the full range of ecosystem types in the Wellington Region, from remnants of original (pre-human) ecosystems to modified environments such as farmland. While acknowledging the different outcomes sought for these ecosystems, the Strategy recognises the many opportunities that exist to improve their ecological health and increase their capacity

to support native plants and animals. The Strategy’s vision is underpinned by four operating principles that guide how all Greater Wellington’s biodiversity-related activities are conducted. These are using best practice, working with others, leading by example, and partnering with mana whenua.

Three goals encompass the range of work undertaken by Greater Wellington to fulfil our responsibilities for biodiversity in the Wellington Region (Figure 2). The first goal focuses on protecting a range of sites that are highly valued for their biodiversity. The second is to maintain and restore ecosystem functioning and habitats across the Wellington Region more generally. Healthy functioning includes providing habitat for native species and benefiting people by providing ecosystem services. The third goal underpins the other two and focuses on ensuring that people inside and outside Greater Wellington understand and value biodiversity. This goal recognises that Greater Wellington cannot achieve its vision for biodiversity without the support of others.

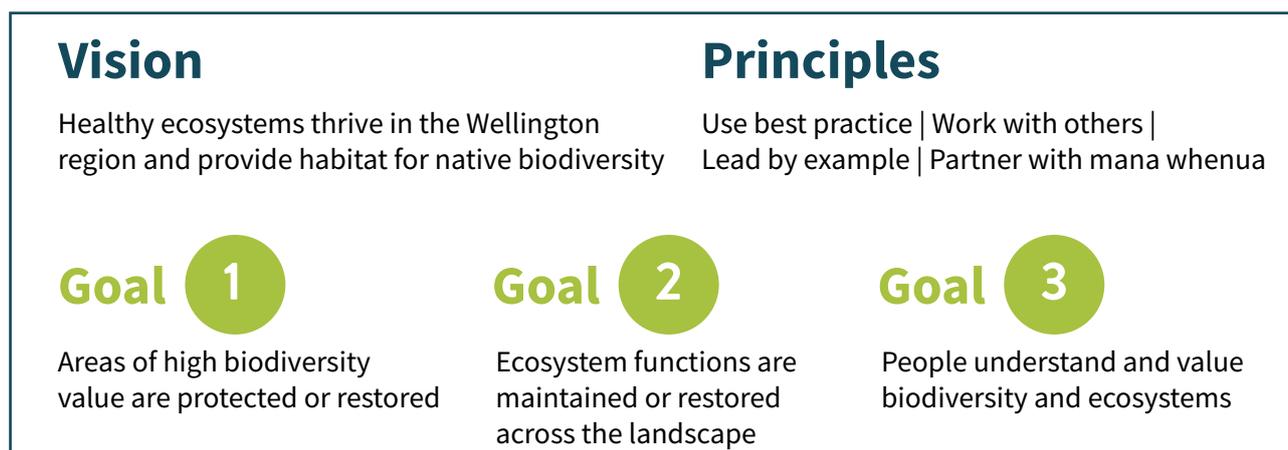
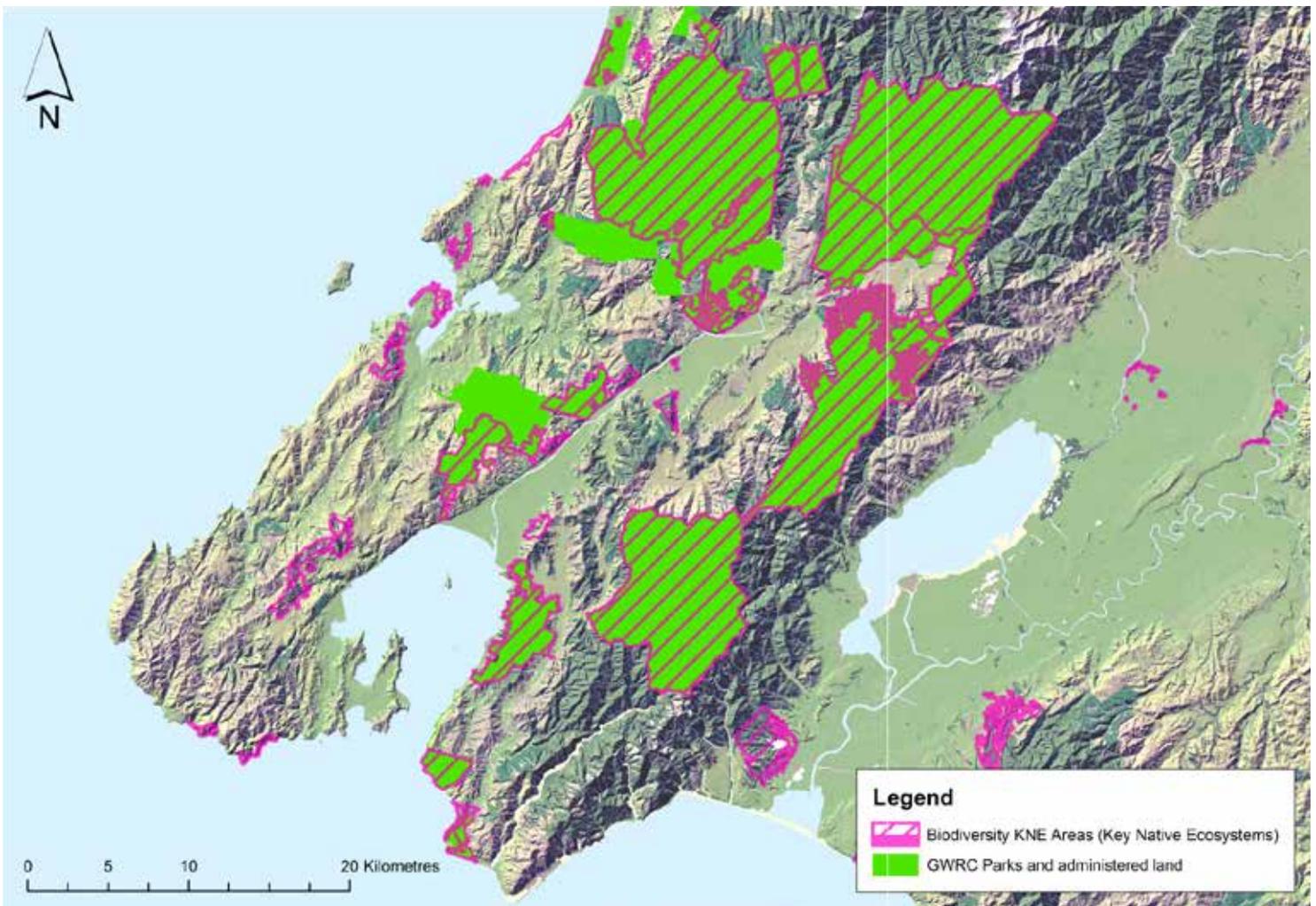


Figure 2: Greater Wellington’s strategic approach to biodiversity



Map 2: Key Native Ecosystems in Greater Wellington Parks and forest

2.1.4 Key Native Ecosystem programme

The Key Native Ecosystem (KNE) programme is designed to protect areas that are important examples of original ecosystems in the Wellington Region that support a wide variety of native plants and animals. The areas that are part of the KNE programme have been identified and prioritised for management and financial support. These areas are recognised as some of the best remaining examples of original ecosystem types in the Wellington Region (Map 2).

Different types of ecosystems (forest, wetland, freshwater, estuarine, and coastal and marine) were identified on both public and private land using widely accepted criteria, including representativeness, rarity and diversity. The KNE programme is an important driver for managing many of the pests that are prioritised in this Plan. Without active management of KNE sites, many native plants and animals in these ecosystems would struggle to thrive. The KNE programme aims to provide protection to maintain or

restore the ecological function of these ecosystems as well as the native plants and animals they support. This is done mainly by managing threats such as harmful pests or introduced plants and animals.

The protection of these areas is an invaluable investment in the future of the Wellington Region's original ecosystems. Often it takes many years for an ecosystem to recover and support a wide range of native animals and plants. This is why the management of KNE sites is a long-term commitment. The operational management plans we prepare for KNE sites specify actions for their ongoing protection to achieve desired objectives at KNE sites.

To actively manage KNE sites, Greater Wellington works proactively with a range of partners including mana whenua, territorial authorities, community groups and private landowners. Involvement in the entire KNE programme is voluntary whether on private or public land.

2.1.5 Regional Predator Control Programme

The Regional Predator Control Programme (RPCP) is a Greater Wellington pest management initiative that aims to control possums and other predators that are serious threats to our native biodiversity.

The RPCP is being expanded through the Wellington Region as funding allows, and Greater Wellington will contact eligible landowners to undertake control work on their properties in areas with high predator populations.

Ongoing control reduces the number of carcasses in an operational area and the amount of toxin needed to keep predators at a low level. It allows native vegetation and wildlife to recover alongside preventing damage to primary production.

Monitoring measures the success of an operation or indicates when control should be implemented. A range of monitoring methods appropriate to the target species will be used, with monitoring targets set at appropriate levels to achieve the proposed outcomes.

2.1.6 Greater Wellington regional parks and administered land

The Wellington Region is unique in having large areas of public land designated as regional parks and/or administered by the Greater Wellington Regional Council (Greater Wellington) Parks department (more than 50,000 ha). Some of the best regional high-value native biodiversity areas are found in our parks and land administered by Greater Wellington. A number of these areas are included in the Key Native Ecosystem programme. (Map 2)

Intensive pest management in the KNE sites within our parks is complemented by the much larger restoration and pest management efforts by the staff and volunteer groups outside of the KNE boundaries. Sites like the Wainuiomata Mainland Island (within the Wainuiomata Orongorongo KNE site) and the East Harbour Mainland Island (within the East Harbour Northern Forest KNE site) are some of the best examples of their respective ecosystems in the region.

2.1.7 Greater Wellington and the QEII National Trust

Greater Wellington has a close relationship with the QEII National Trust and the Memorandum of Understanding sets out the general terms under which the parties will co-operate in areas of mutual interest. As part of this agreement Greater Wellington contributes budget to QEII

on an annual basis to assist with the establishment of new covenants (mainly fencing and some initial pest plant and/or pest animal control) and to provide maintenance assistance for existing covenants (mainly pest plant control with some pest animal control and planting).

2.1.8 Regional Policy Statement

The Regional Policy Statement for the Wellington Region provides the policy direction to address regionally significant issues and for integrated management of the region's natural and physical resources. Our pest management activity aims to mitigate the adverse impacts of pest animals and plants on the environment, economy and community, and maximise the effectiveness of pest management through a regionally coordinated response. Our pest management activity principally supports Objective 16 of the Regional Policy Statement:

"Indigenous ecosystems and habitats with significant biodiversity values are maintained and restored to a healthy functioning state" and Objective 13: "The region's rivers, lakes and wetlands support healthy functioning ecosystems". The adverse impacts of pest plants and animals include: loss of native plants and animals, reduced productivity for farming and horticulture, and public nuisance.

2.1.9 Natural Resources Plan

The Natural Resources Plan (NRP) for the Wellington Region sets objectives, policies and rules for managing environmental resources in the region. The use of air, water, waterbodies, discharges to land and the coastal marine area is managed to allow the benefits of that use while protecting or restoring values and reducing any adverse effects of that use. Sites of significance for a number of values, including significant indigenous biodiversity, are identified. The pests prioritised in this Plan will guide how we focus our pest management work in relation to the NRP.

Pest management generally aims to minimise and mitigate the impacts of pests and other harmful plant and animal organisms on economic, environmental, social and cultural community values and Māori relationships with air, land and water. Mana whenua articulate the need to care for the mauri, or life-giving properties, of the region, particularly the mauri of fresh and coastal waters on which wellbeing is dependent. Mana whenua were actively involved in developing the NRP.

Information on mana whenua's collective and separate values and sites of significance provides valuable insights for regional pest management planning and decisions. As such, this Plan supports many of the objectives of the NRP for the Wellington Region. Of particular note are objectives to safeguard aquatic ecosystem health and mahinga kai in freshwater bodies and the coastal marine area (part of Objectives O4 and O19) and Objective O28 "Ecosystems and habitats with significant indigenous biodiversity values are protected and restored". Objective O22 specifically addresses natural wetlands: "The extent of natural wetlands is maintained or increased and their condition is restored".

Pest management operations will be undertaken in accordance with any rules that are relevant in the NRP and will support the non-regulatory methods to restore the ecological values of Te Awarua-o-Porirua Harbour (Method M8), the ecological values of Wairarapa Moana (Method M9) and the values and restoration of natural wetlands (Method 23).

2.1.10 Marine biosecurity

The region is surrounded by coastline on all but the northern boundary. This coastline is made up of rocky shoreline, beaches, harbours and estuaries, providing a vast range of habitats for marine organisms. Commercial and recreational activity is common on all coasts, in particular national and international shipping activity to and from Wellington and Porirua Harbours. There is a constant risk of a biosecurity incursion in the region from this type of activity.

Marine biosecurity is a developing area of the biosecurity system for New Zealand, at both national and regional levels. The level of marine biosecurity capability for the region has been low and slow to increase. For this reason, as the national marine biosecurity surveillance and response capability increases, throughout the life of this Plan, Greater Wellington will work with central government, local government and mana whenua partners to ensure the protection of the marine biodiversity of the region.

2.1.11 Climate change

Climate change and the potential impacts were taken into consideration in the Plan review. Pest species in the Wellington Region have wide and varying ecological niches, and climatic changes in the Wellington Region are unlikely to result in measurable changes in species' composition or the pest profiles of listed species in

the life of the Plan. Climate change can influence the seasonal dynamics of pest species and, due to extreme or changeable weather conditions, affect our ability to control them. Climate change can also result in species moving outside their usual range – marine pests in particular.

New weather dynamics can influence masting events, for example beech masting, and make fluctuations in

pest populations more unpredictable. The Wellington Region will potentially become more habitable for some species as the effects of climate change become more prevalent. For example, the Indian myna bird population may increase, but as we are on the edge of distribution of the species it is not expected that numbers will reach those seen north of the Wellington Region during the life of the Plan.

The Plan is scheduled for review every 10 years. The Biosecurity Act allows for minor reviews to the Plan during the 10 years (between major reviews), which allows for new species or threats to be included in the Plan and allows for the review of existing programmes if pest status changes due to climate change.

2.1.12 Biosecurity framework outside Greater Wellington

An effective biosecurity system is established within the Wellington Region, between regions and at a national level (refer Figure 3 and Appendix 4). All neighbouring regional councils, and all regional councils nationwide, maintain operative regional pest management strategies or plans.

Central government is responsible for preventing pests from entering New Zealand, providing leadership and coordinating or implementing incursion management where eradication from New Zealand remains attainable. Rapid response initiatives and national pest management

accords, registers and strategies are examples of the instruments they employ. The Ministry for Primary Industries (MPI) website, at www.mpi.govt.nz, outlines the details of those instruments.

Iwi management plans and the plans and strategies of TAs are likely to influence collaborative planning and management decisions.

As a result, RPMPs are an integral component of a comprehensive biosecurity system that protects New Zealand's economic, environmental, social and cultural values from the threat of pests.

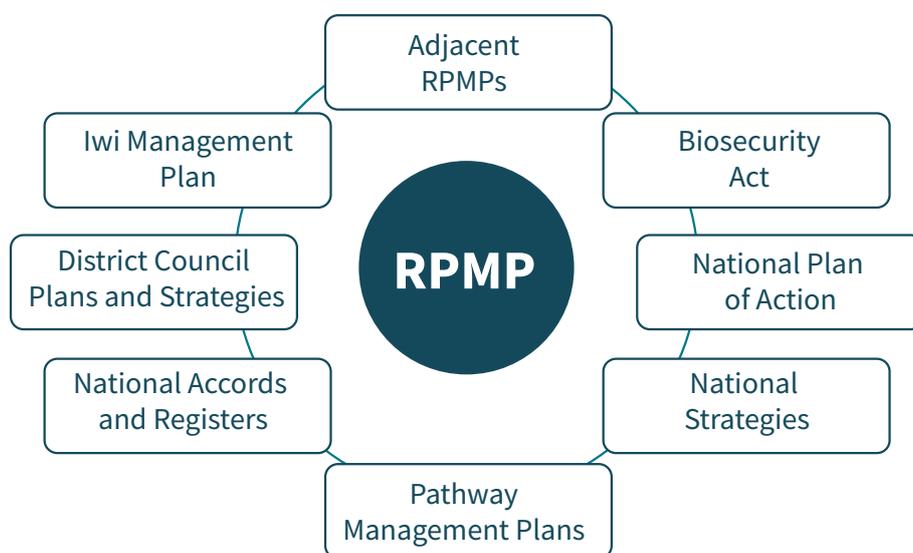


Figure 3: External biosecurity instruments

2.1.13 Predator Free Wellington

Predator Free Wellington is a joint programme between the Wellington City Council, Greater Wellington and the NEXT Foundation. The vision is for Wellington to become the world's first predator-free capital city – a network comprising thousands of households, community groups and organisations working together to eradicate rats, mustelids and possums so that our native wildlife can thrive.

For the purposes of this project, “Wellington” is seen as the area that includes Miramar Peninsula through to the south-west corner of the greater Wellington landmass and north to a boundary aligning with the State Highway 1 motorway, through to the Porirua City boundary (Map 3). It does not include the Hutt Valley or Porirua. It is an area encompassing 30,000ha of urban and rural land, with an estimated 70,000 households.

The Predator Free Wellington initial focus is on eradicating predators from the Miramar Peninsula before moving

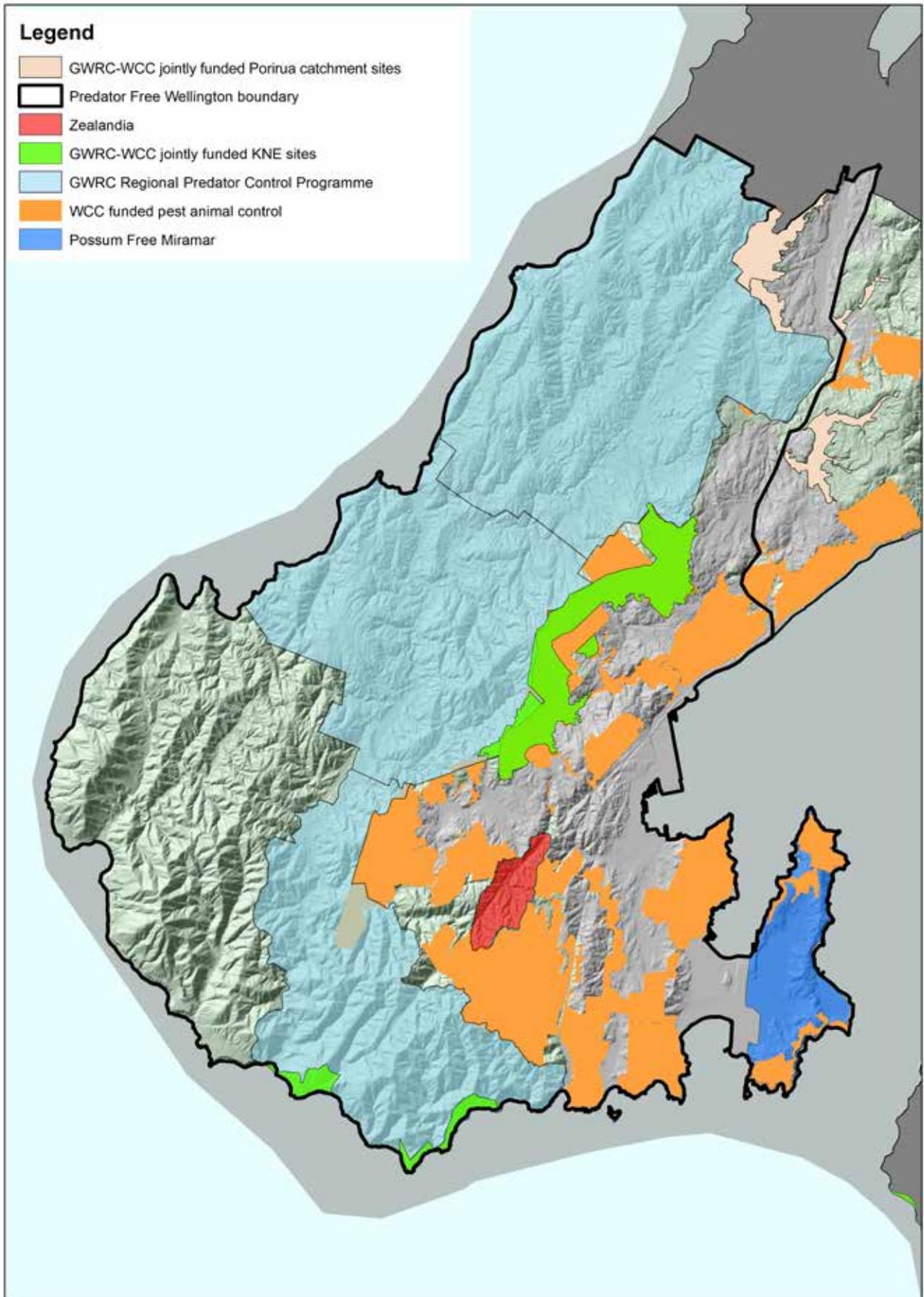
to other Wellington suburbs. After tackling Miramar Peninsula, a strategy will be developed to extend the project across the entire Wellington city area. Management of cats is not included in the scope of the proposed project.

Key results that the programme aims to achieve are:

- 1 Highly significant ecological outcomes – more birds, lizards and invertebrates contributing to healthy, functioning ecosystems
- 2 Significant economic benefits – for example, no more rats chewing wires or pipes
- 3 Social benefits – more connected communities working together for a common cause

Engaging with the community will form a large part of the project, and lessons learned by the Crofton Downs Predator Free Community group (New Zealand's first

predator-free community) and others will inform how the project is designed and implemented.



Map 3: Map of Predator Free Wellington control area

2.2 Legislative background

Regional councils undertake local government activities and actions under several legislative mandates. While managing pests is not dependent on one particular statute, its effectiveness is connected to the purpose

of the particular statute. All regional councils in New Zealand prepare and operate RPMPs under the Biosecurity Act.

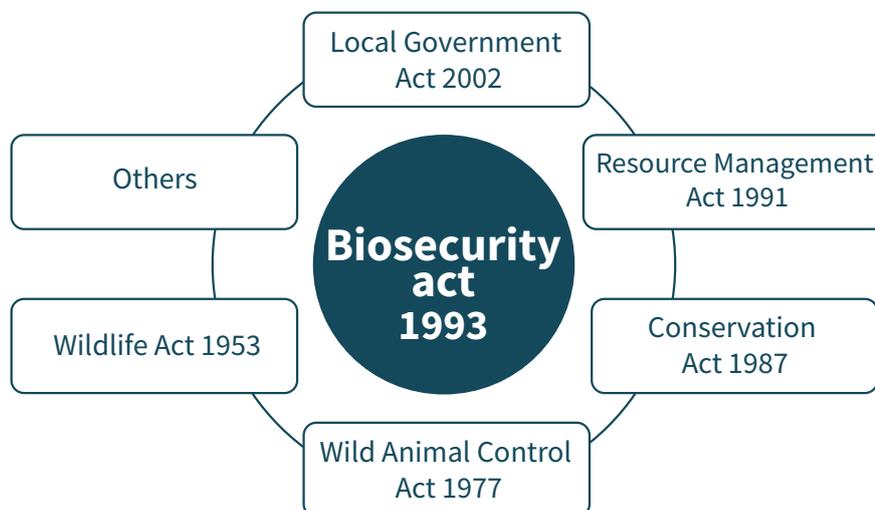


Figure 4: Biosecurity legislation

2.2.1 Biosecurity Act 1993

A regional council can use the Biosecurity Act to exclude, eradicate or effectively manage pests in its region, including unwanted organisms. While regional councils have no statutory obligation to undertake pest management, most have significant leadership roles in this field and therefore choose to. As such, the Act's approach is enabling rather than prescriptive. It provides a framework to gather intervention methods into a coherent system of efficient and effective actions.

Three parts of the Act are particularly pertinent to regional councils:

Part 2: Functions, powers and duties in a leadership role

Regional councils are mandated under Part 2 (functions, powers and duties), Section 12B of the Act to provide regional leadership in activities that prevent, reduce or eliminate adverse effects from harmful organisms that are present in their regions. Section 12B sets out the ways in which regional councils provide leadership. These include helping to develop and align RPMPs and regional pathway management plans in the region, promoting public support for managing pests, and helping those involved in managing pests to communicate and cooperate to make programmes more effective, efficient and equitable. Section 13(1) sets out powers that support regional councils in this leadership role. These include powers to:

- Monitor and survey pests, pest agents and unwanted organisms
- Provide for the assessment and eradication or management of pests in accordance with relevant pest management plans
- Prepare proposals for, make and implement RPMPs
- Appoint a management agency for a plan
- Disallow an operational plan or part of it
- Review, amend, revoke and replace, or revoke a plan
- Declare and implement small-scale management programmes
- Gather information, keep records and undertake research

Part 5: Managing pests and harmful organisms

Part 5 of the Act specifically covers pest management, including regional pest management. Its primary purpose is to provide for the eradication or effective management of harmful organisms. A harmful organism is assigned pest status if it is included in a pest management plan (also see the prerequisites in sections 69-78 of the Act).

Part 5 includes a requirement for ongoing monitoring to determine whether pests and unwanted organisms are present, and keeping them under surveillance. Part of this process is to develop effective and efficient

measures (such as policies and plans) that prevent, reduce or eliminate the adverse effects of pests and unwanted organisms on land and people (including Māori, their kaitiakitanga and taonga). This part requires that a regional council must assess any other proposal for an RPMP, must prepare an operational plan for any RPMP (if it is the management agency for it) and must prepare an annual report on the operational plan. Part 5 also addresses the issue of who should pay for the cost of pest management.

Part 6: Administering an RPMP

Once operative, an RPMP is supported by parts of Part 6 (as nominated in the plan) that focus on the administrative provisions and powers to enable voluntary and mandatory actions of a regional council.

The administrative provisions and powers are listed in Section 9 of this Plan.

2.2.2 Resource Management Act 1991

Regional councils also have responsibilities under the Resource Management Act 1991 (the RMA) to sustainably manage the natural and physical resources of the region, including the coastal marine area. These responsibilities include sustaining the potential of natural and physical resources, safeguarding life-supporting capacity, and protecting environmentally significant areas and habitats (sections 5(2) and 6(c)).

The RMA sets out the functions of regional councils in relation to: the maintenance and enhancement of ecosystems in the coastal marine area of the region (section 30(1)(c)(iia)); the control of actual or potential effects of use, development or protection of land (section 30(1)(d)(v)); and the establishment, implementation and review of objectives, policies and methods for maintaining indigenous biological diversity (section 30(1)(ga)).

The focus of the RMA is on managing adverse effects on the environment through regional policy statements, regional and district plans, and resource consents. The RMA, along with regional policies and plans, can be used to manage activities so that they do not create biosecurity risks, or those risks are minimised. While the Biosecurity Act is the main regulatory tool for managing pests, there are complementary powers within the RMA that can be used to ensure that problems are not exacerbated by activities regulated under the RMA.

The RMA enhances opportunities for iwi input to the RMA processes. Council's partnership with mana whenua enables them to influence decision-making and planning of key documents including the Pest Management Plan.

The Biosecurity Act cannot override any controls imposed under the RMA, for example bypassing resource consent requirements.

2.2.3 Local Government Act 2002

The purpose of the Local Government Act 2002 (the LGA) is to provide "a framework and powers for local authorities to decide which activities they undertake and the manner in which they will undertake them".

The LGA currently underpins biosecurity activities through the collection of both general and targeted rates. While planning and delivering pest management objectives could fall within powers and duties under the LGA, accessing legislation focused on managing pests at the regional level is the most transparent and efficient approach. Greater Wellington is mandated under section

11(b) of the LGA to perform the funding function, and section 11(b) provides for Greater Wellington to perform duties under Acts other than the LGA.

The LGA requires Greater Wellington to recognise and respect the Crown's responsibilities under Te Tiriti o Waitangi. Under the Act, local government is required to promote opportunities for Māori and others to contribute to its decision-making processes. In relation to the Pest Management Plan, the engagement of mana whenua and Māori will be important to inform the future planning and implementation of the framework.

2.2.4 Wild Animal Control Act 1977 (and Wild Animal Control Amendment Act 1997) and the Wildlife Act 1953

Activities undertaken in implementing this Plan must comply with other legislation. The Wild Animal Control Act 1977 (and Wild Animal Control Amendment Act

1997), the Wildlife Act 1953 and the Freshwater Fisheries Regulations 1983 (all administered by the Department of Conservation) have a role in relation to managing animals/fish.

- (a) The Wild Animal Control Act controls the hunting and release of wild animals such as deer, chamois, tahr and feral goats and pigs, and regulates deer farming and the operation of safari parks. It also gives local authorities the power to destroy wild animals under operational plans that have the Minister of Conservation's consent.
- (b) The Wildlife Act controls and protects wildlife not subject to the Wild Animal Control Act. It identifies wildlife that are not protected (e.g., mustelids, possums, wallabies, rooks and feral cats), that are to be game (e.g., mallard and paradise ducks and black swans) and that are partially protected or are injurious. It also authorises that certain unprotected wildlife may be kept and bred in captivity even if they are declared pests under a pest management plan.
- (c) The Freshwater Fisheries Regulations 1983 place controls on people who possess, control, rear, raise, hatch or consign noxious fish without authority.

2.2.5 Other legislation

Other legislation (such as the Reserves Act 1977 and the Conservation Act 1987) contains provisions that support pest management within specific contexts. The role of regional councils under such legislation is limited to advocacy. As regional councils have a specific role under the Biosecurity Act, taking on only an advocacy role would be of little use.

The National Animal Identification and Tracing Act 2012 establishes an animal identification and tracing system that provides for the rapid and accurate tracing of deer and cattle for the purpose, among other things, of improving biosecurity management. To meet National Animal Identification and Tracing Act requirements, all persons in charge of deer or cattle must ensure that all deer and cattle are tagged with approved ear tags and are registered, and records are kept of the animals' movements.

As each of Greater Wellington's six mana whenua partners settle their Treaty of Waitangi historical claims with the Crown, their settlement Acts identify new

opportunities for Greater Wellington. The provisions identify new partnering obligations and arrangements that deliver mutual benefits and help iwi achieve their post-settlement aspirations. The Acts include the:

- Port Nicholson Block (Taranaki Whānui ki Te Upoko o Te Ika) Claims Settlement Act 2009, which includes the Parangarahu Lakes arrangement
- Ngāti Toa Rangatira Claims Settlement Act 2014, which includes the Whitireia Park Board arrangement
- Rangitāne Tū Mai Rā (Wairarapa Tamaki nui-ā-Rua) Claims Settlement Act 2017
- Ngāti Kahungunu ki Wairarapa Tamaki nui-ā-Rua Settlement Act (once the latter settles), which includes the joint Wairarapa Moana Statutory Board redress.

Parties involved in implementing the Pest Management Strategy must consider the obligations associated with each of these settlement Acts.

2.3 Relationship with other pest management plans

An RPMP must not be inconsistent with any:

- National or regional pest management plan that is focused on the same organism
- Pathway management plan
- Regulation or regulations

Coordination with other pest management plans, and pest control operations undertaken by DOC, OSPRI and the Horizons Regional Council, will be achieved through consultation, collaboration and communication between Greater Wellington and the relevant agency. Alternative pest management arrangements or memoranda of understanding will be developed as required. Liaison on national pest control matters will take place with MPI.

In developing this Plan, Greater Wellington has considered the aims and objectives of the pest

management strategies of the neighbouring council. The Wellington Region shares a boundary with the Horizons Region. Greater Wellington consulted the Horizons Regional Council on the species that have very different pest profiles and/or distribution in our regions. Where possible, Greater Wellington will align its work programmes with neighbouring regional councils to maximise efficiencies in pest control. An example of this is Greater Wellington working collaboratively with the Horizons Regional Council and Hawke's Bay Regional Council in managing rooks.

Greater Wellington is also aware of, and has considered the control of harmful and unwanted organisms that are under the auspices of central government agencies. Greater Wellington will work with DOC and MPI to ensure that the Plan is not inconsistent with their objectives for unwanted organisms. Significant pest

management control by OSPRI, to reduce bovine Tb vectors (possums, mustelids etc.) in our region, under the National Pest Management Plan for Bovine Tb is continuing for the duration of this Plan and supports the outcomes this Plan seeks to achieve.

There is a long history of successful partnership between Greater Wellington and other agencies through collaborative projects, such as the Wairarapa Moana Wetland Project (with DOC, mana whenua

partners and South Wairarapa District Council) and the National Interest Pest Response programme (with MPI). Also, Greater Wellington is a member of the National Biosecurity Capability Network and contributes staff, expertise and resources to the incursion responses against new to New Zealand organisms led by MPI (e.g., fruit fly response in Auckland, Myrtle rust, *Mycoplasma bovis* response).

2.3.1 Biosecurity 2025 Direction Statement

In November 2016 the Government outlined its vision for biosecurity management in New Zealand through the release of the Biosecurity 2025 Direction Statement. This outlines five strategic directions necessary to strengthen the parts of the national biosecurity system that are working well, to drive change where it is needed, and to harness opportunities to work more effectively:

- 1 "A biosecurity team of 4.7 million." A collective effort across the country: every New Zealander becomes a biosecurity risk manager and every business manages its own biosecurity risks.
- 2 "A toolbox for tomorrow." Harnessing science and technology to transform the way we do biosecurity.

- 3 "Smart, free-flowing information." Tapping into the wealth of data available, building intelligence and using powerful data analysis to underpin risk management.
- 4 "Effective leadership and governance." System-wide leadership and inclusive governance arrangements supporting all system participants in their roles.
- 5 "Tomorrow's skills and assets." A capable and sustainable workforce and world-class infrastructure providing the foundation for an effective system.

The programmes in this Plan align well with these strategic directions, emphasising the shared responsibilities for pest management and the evidence basis for their inclusion. The preparation and implementation of the Plan are core to taking regional leadership, combined with the broader operational and other programmes undertaken by Greater Wellington.

2.3.2 Predator Free 2050

This is an ambitious programme to rid New Zealand of possums, rats and stoats by 2050. Its aim is to connect and amplify successful efforts already underway across communities, iwi, private businesses, philanthropists, scientists and government. The intention is also to focus on developing breakthrough predator-control tools and techniques (as it is recognised that currently the technology to achieve this ambition is not available).

Four interim goals for 2025 have been set for the project:

- 1 An additional one million hectares of land where pests have been suppressed or removed through Predator Free New Zealand partnerships
- 2 Development of a scientific breakthrough capable of removing at least one small mammalian predator from New Zealand entirely

- 3 Demonstration that areas of more than 20,000ha can be predator free without the use of fences
- 4 Complete removal of all introduced predators from offshore island nature reserves

Greater Wellington recognises and supports the opportunity for a step-change in pest management in New Zealand. Greater Wellington is looking to partner with Predator Free 2050 in working towards this goal through key pest animal programmes within the Wellington Region.

Engaging with the community and supporting suburban pest management programmes will form a large part of the project, and lessons learned by the Crofton Downs Predator Free Community group and others will inform how we both design the project and implement the project design.

2.3.3 National Pest Plant Accord

The Regional Pest Management Strategy 2002-2022 included a number of pests that are also listed in the National Pest Plant Accord (NPPA). This accord is a cooperative agreement between central government (MPI and DOC), New Zealand Plant Producers Incorporated, unitary authorities and regional councils.

The goal of the NPPA is to stop the spread of specific pest plants through casual and nursery trade, where distribution through either of those trades is the plants' primary distribution pathway. The NPPA is used alongside other pest management strategies.

MPI is responsible for coordinating, developing and managing the non-statutory accord. The NPPA

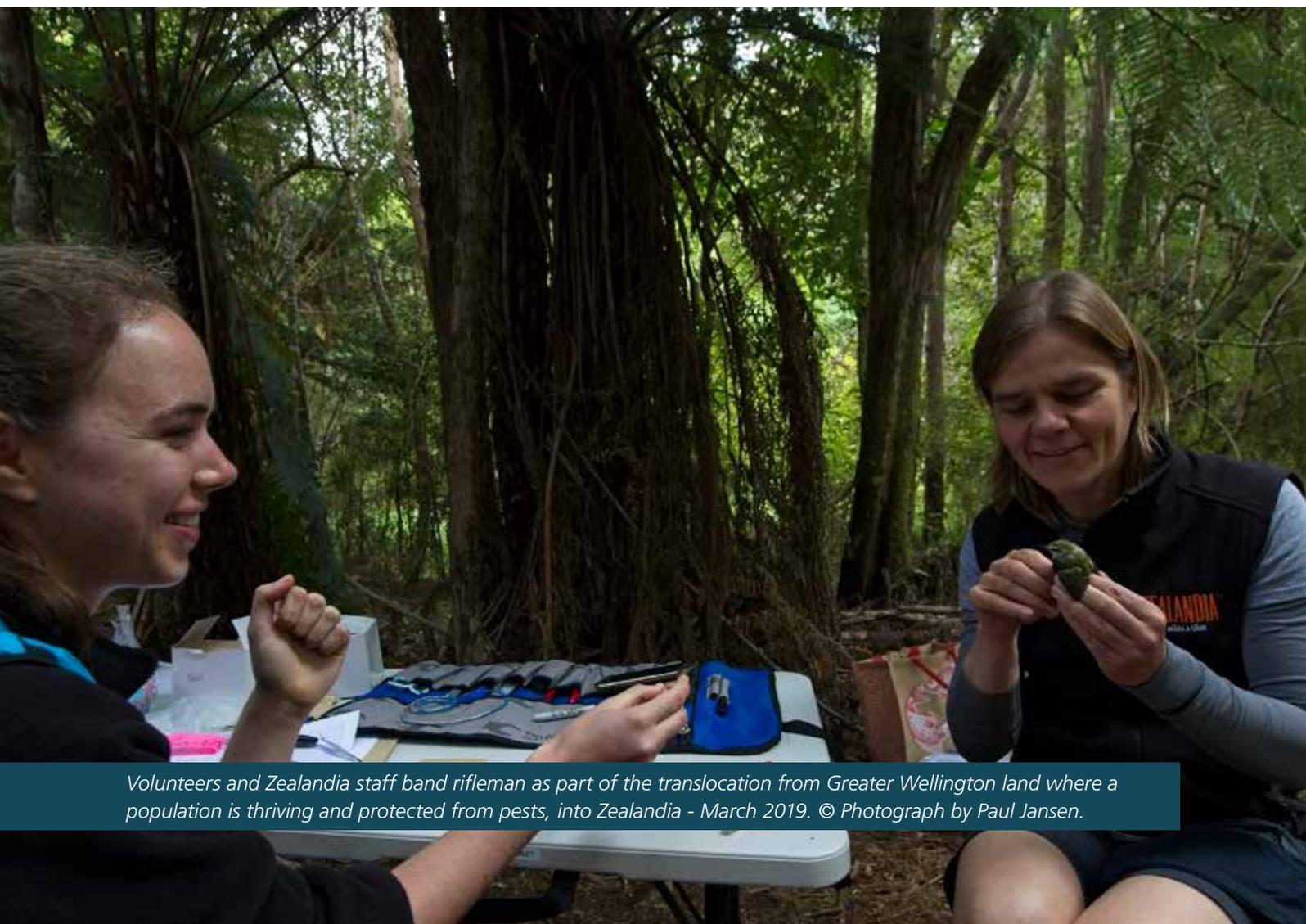
includes approximately 135 plants. All of these plants are unwanted organisms and are banned from sale, propagation and distribution throughout New Zealand. Regional councils undertake regular surveillance to prevent their sale, propagation and distribution. The full list of species on the NPPA is available on MPI's website (<https://mpi.govt.nz/protection-and-response/long-term-pest-management/national-pest-plant-accord>).

Several plants on the NPPA list are also addressed by management programmes in this Plan, additional to the restrictions on their spread derived from their status as unwanted organisms.

2.3.4 National Pest Pet Biosecurity Accord

The National Pest Pet Biosecurity Accord (NPPBA) is an initiative similar to the NPPA, and is a partnership between MPI, DOC, unitary authorities, regional councils, the Pet Industry Association and the New Zealand Companion Animal Council. Its purpose is to regulate the domestic trade of high-risk pets (excluding cats and dogs) and to encourage responsible pet ownership.

The intention is to identify a list of species to be declared unwanted organisms, although to date no species have been regulated under the NPPBA. As with pest plants in the NPPA, the inclusion of high-risk pets on the NPPBA list does not preclude their inclusion in RPMP programmes.



Volunteers and Zealandia staff band rifleman as part of the translocation from Greater Wellington land where a population is thriving and protected from pests, into Zealandia - March 2019. © Photograph by Paul Jansen.

3 KAWENGA ME NGĀ HERENGA RESPONSIBILITIES AND OBLIGATIONS

3.1 The management agency

Greater Wellington is the management agency responsible for implementing this Plan. Greater Wellington is satisfied that it meets the requirements of section 100 of the Biosecurity Act in that it:

(a) Is accountable to the Plan funders, including Crown agencies, through the requirements of the LGA

(b) Is acceptable to the funders and those persons subject to the Plan's management provision because it has implemented previous regional pest management strategies

(c) Has the capacity, competency and expertise to implement the Plan

How Greater Wellington will undertake its management responsibilities is set out in Part Three – Procedures of the Plan and in its annual Biosecurity Operational Plan.

3.2 Responsibilities of owners and/or occupiers

Pest management is an individual's responsibility in the first instance, because generally occupiers contribute to the pest problem and in turn benefit from the control of pests. The term "occupier" has a wide definition under the Biosecurity Act and includes:

- The person who physically occupies the place
- The owner of the place
- Any agent, employee or other person acting or apparently acting in the general management or control of the place

Under the Act, "place" includes any building, conveyance, craft, land or structure and the bed and waters of the sea and any canal, lake, pond, river or stream.

Owners and/or occupiers must manage pest populations at or below levels specified in the rules. If they fail to meet the rules' requirements, they may face legal action. In some instances, owners and/or occupiers must report pests to Greater Wellington. They must never sell, propagate, distribute or keep pests.

An owner and/or occupier cannot stop an authorised person entering a place, at any reasonable time, to:

- Find out whether pests are on the property
- Manage pests
- Ensure that the owner and/or occupier is complying with biosecurity law

This Plan treats all private land equitably and emphasises the responsibilities and obligations of all land owners and/or occupiers, including Māori. Greater Wellington acknowledges the complex and variable relationship of Māori land ownership and occupation. This includes multiple owners (including lessees) and a range of corporate management systems under the Companies Act 1993 and Te Ture Whenua Maori Act 1993. Where owners and/or occupiers are unknown, the Māori Land Court or the Registrar of Companies may help to identify and communicate with them.

The RPMP does not provide for compensation to be paid to any persons meeting their obligations under its implementation. However, should the disposal of a pest or associated organism provide any net proceeds, a person will be paid disbursement in the manner noted under section 100I of the Act.

3.3 Crown agencies

Four central government agencies (including state-owned enterprises) have been identified as being significant beneficiaries or exacerbators of pest management in the Wellington Region. These include:

- Department of Conservation
- NZ Transport Agency (NZTA)
- New Zealand Railways Corporation (KiwiRail)

- Land Information New Zealand
- New Zealand Defence Force

DOC undertakes significant pest management of Crown estate that supports the objectives of this Plan. Greater Wellington will continue to pursue and maintain formal and informal relationships with Crown agencies to achieve the objectives of this Plan.

3.4 Territorial authorities

Nine territorial authorities (TAs) are wholly or partly contained within the Wellington Region. They are the Wellington City Council, Porirua City Council, Hutt City Council, Upper Hutt City Council, Carterton District Council, Kāpiti Coast District Council, Masterton District Council, South Wairarapa District Council and Tararua District Council.

Each TA will be bound by the rules in the Plan (with the exception of situations where adjoining occupiers of road reserves are deemed responsible in accordance with section 3.6 (Road reserves)). Each TA must meet the costs of complying with this Plan. Greater Wellington believes that, where relevant there are benefits in developing memoranda of understanding with TAs to limit the spread of pests and facilitate effective pest management.

3.5 NZ Transport Agency

There are more than 230km of state highways in the Wellington Region. NZ Transport Agency (NZTA) is the occupier of the Crown land on which the roads lie, together with the road reserves extending to the adjoining land owners'/occupiers' property boundaries.

The New Zealand Transport Agency is a statutory entity and a Crown agent under section 7 and Schedule 1 of

the Crown Entities Act 2004 and therefore a Crown entity. As a Crown entity, NZTA is subject to provisions applicable to, and therefore falls within the definition of, land occupier for the purposes of obligations for pest control.

3.6 Road reserves

Road reserves include the land on which formed roads lie and the verge areas that extend to adjacent property boundaries. The Biosecurity Act allows the option of making either roading authorities (NZTA and district/city councils) or adjoining land occupiers responsible for pest management in road reserves (see section 6(1) of the Act).

As such, Greater Wellington has decided that, for the purpose of this Plan, roading authorities are responsible for controlling pests on road reserves that they occupy. Where a road reserve boundary is unknown, a survey will indicate the location of a road or rail reserve boundary (should this be necessary). Areas where roading authorities are responsible for controlling pests include:

- Rest areas
- Weigh pits and stockpile areas
- Road reserves where road works have contributed to the establishment of named pests

- Road reserves adjacent to land where a landowner is undertaking programmed pest management
- Any other area where it is unreasonable to expect adjoining landowners to control pests (eg, steep topography)

Except where a rule prevents occupier control, adjacent landowners are responsible for controlling pests on road reserves in the following situations:

- Unformed paper roads that they occupy or are contiguous to the land that they occupy
- On land beyond 10m of the road centreline where the road reserve boundary is unknown
- Where fences encroach onto a surveyed road reserve; the occupier adjoining the road reserve shall be responsible for pests within that fenced area
- Where adjacent occupiers do not support the use of toxins/chemicals to control pests (eg, organic farming practices); the occupier adjoining the road reserve shall be responsible for pest control in the road reserve as well

3.7 KiwiRail

KiwiRail is, on behalf of the Crown, the owner and manager of New Zealand's railway infrastructure. For the purposes of the Biosecurity Act, KiwiRail comes within the definition of an occupier of land under the Act.

Therefore the land that KiwiRail occupies is subject to the rules for land owners/occupiers as defined in the Plan, and KiwiRail has the same obligations as any other land occupier.



Horned poppy being controlled on the South coast by our team.

WAHANGA TUARUA – WHAKAHAERE RIHA PART TWO – PEST MANAGEMENT



Members of our pest animal team set out for a day of trap checking in the region.

4 WHAKAMĀTUA KAIAO ORGANISM STATUS

Organisms listed in this Regional Pest Management Plan are identified as one of the following: pests, harmful organisms, or unwanted organisms.

4.1 Organisms declared as pests

Table 1 lists organisms that are classified as pests, and the management programme(s) that will apply to the pests.

Attention is also drawn to the statutory obligations of any person under sections 52 and 53 of the Biosecurity Act. Those sections ban anyone from selling, propagating, releasing or distributing any pest, or part of a pest, covered by the Plan. Not complying with sections 52 and 53 is an offence under the Act, and may result in the penalties noted in section 157(1).

Table 1: Organisms classified as pests

Common name	Scientific name	Programme	Page
Plants			
Alligator weed*	<i>Alternanthera philoxeroides</i>	Exclusion	29
Banana passionfruit*	<i>Passiflora mixta</i> , <i>P. mollissima</i> , <i>P. tripartita</i>	Site-led Hutt City Council (HCC)	57
Blue passionflower*	<i>Passiflora caerulea</i>	Sustained control	45
Boneseed*	<i>Chrysanthemoides monilifera</i>	Sustained control	47
Cathedral bells*	<i>Cobaea scandens</i>	Site-led HCC	58
Chilean needle grass*	<i>Nassella neesiana</i>	Exclusion	29
Climbing spindleberry*	<i>Celastrus orbiculatus</i>	Sustained control	49
Eelgrass*	<i>Vallisneria spiralis</i> , <i>V. gigantea</i>	Sustained control	50
Moth plant*	<i>Araujia hortorum</i>	Eradication	32
Nassella tussock*	<i>Nassella trichotoma</i>	Exclusion	30
Old man's beard*	<i>Clematis vitalba</i>	Site-led HCC	58
Purple loosestrife*	<i>Lythrum salicaria</i>	Progressive containment	38
Senegal tea*	<i>Gymnocoronis spilanthoides</i>	Eradication	33
Spartina	<i>Sporobolus anglicus</i> , <i>S. alterniflorus</i>	Eradication	33
Velvetleaf**	<i>Abutilon theophrasti</i>	Eradication	34
Woolly nightshade*	<i>Solanum mauritianum</i>	Eradication	34
Wilding conifers	<i>Pinus spp.</i> , <i>Larix decidua</i> , <i>Pseudotsuga menziesii</i>	Progressive containment	40

*Plants on the NPPA are unwanted organisms under the Biosecurity Act.

**Unwanted organism (as declared by a chief technical officer) (section 164C of the Biosecurity Act).

Common name	Scientific name	Programme	Page
Animals			
European hedgehog	<i>Erinaceus europaeus occidentalis</i>	Site-led	61
Feral deer (fallow, red and sika)	<i>(Dama dama, Cervus elaphus, C. nippon)</i>	Site-led	62
Feral goat	<i>Capra hircus</i>	Site-led	63
Feral rabbit	<i>Oryctolagus cuniculus</i>	Sustained control	52
Magpie	<i>Gymnorhina tibicen, G. tibicen hypoleuca</i>	Site-led	65
Mustelids (ferret**, stoat and weasel)	<i>Mustela furo, M. erminea, M. nivalis</i>	Site-led	66
Pest cat	<i>Felis catus</i>	Site-led	68
Possum	<i>Trichosurus vulpecula</i>	Site-led	70
Rats (Norway and ship)	<i>Rattus norvegicus, R. rattus</i>	Site-led	73
Rook	<i>Corvus frugilegus</i>	Eradication	36
Wallabies (Bennett's and dama)	<i>Macropus rufogriseus, M. eugenii</i>	Exclusion	30
Wasps (common, German, Australian and Asian paper wasp)	<i>Vespula vulgaris, V. germanica, Polistes humilis, P. chinensis</i>	Sustained control	54

*Plants on the NPPA are unwanted organisms under the Biosecurity Act.

**Unwanted organism (as declared by a chief technical officer) (section 164C of the Biosecurity Act).

4.2 Harmful organisms

The term “harmful organism” is used to describe an organism that may cause harm to New Zealand’s economic wellbeing, environment, human health, enjoyment of the natural environment, or the relationship between Māori, their culture, and their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

A number of these harmful organisms are capable of causing significant adverse effects and pose a sufficient future risk to warrant being watch-listed for ongoing surveillance or future control opportunities, especially with the pending impacts of climate change. Greater Wellington may undertake a minor review of this Plan to include control programmes for any new to the region harmful organisms or where the risk of an existing organism has changed before the statutory review of the Plan.

There are also a number of well-established and widespread species that threaten our high-value

biodiversity areas. Many of these harmful organisms were listed in the Regional Pest Management Strategy 2002-2022 and either had no rules or were included in the KNE programme (e.g. Japanese honeysuckle and tradescantia). The current Greater Wellington KNE programme includes many of these species in its operational management plans for long-term control. These harmful organisms include, but are not limited to, those species identified in Appendix 2.

Greater Wellington will continue to provide information and advice to the public about harmful organisms where required.

Greater Wellington will collaborate with and provide support for other agencies (e.g., DOC, MPI and mana whenua partners) on managing pests, unwanted organisms and harmful organisms in the Wellington Region where coordinated action provides the best outcome for the region’s environmental, economic, social and cultural values.

4.3 Unwanted organisms

A number of plant and animal species have been declared nationally as Unwanted Organisms. Some of those organisms are subject to national action under the National Interest Pest Response (NIPR) programme managed by MPI.

Manchurian wild rice, Cape tulip and water hyacinth, which are all subject to NIPR, are known to be present in the Wellington Region. Greater Wellington will continue to work collaboratively with MPI as part of the collective assistance being provided by the councils to the NIPR programme.

The NPPA currently targets 135 plant species, all of which are declared Unwanted Organisms. The NPPA is a cooperative agreement between:

- MPI
- New Zealand Plant Producers Incorporated
- Unitary authorities and regional councils
- DOC

It seeks to prevent the sale and/or distribution of the specified plants where either formal or casual horticultural trade is the most significant way of spreading the plants in New Zealand. The most up-to-date list of NPPA species is available on the MPI website.

Unwanted organisms are banned from sale, propagation and distribution in accordance with sections 52 and 53 of the Biosecurity Act. Any other control measures are the responsibility of the respective government departments, unless a regional council has been specifically asked and has agreed to undertake such work.

For the most up-to-date list of Unwanted Organisms, visit the MPI website (<http://mpi.govt.nz>).

4.4 Invasion curve

The invasion curve is a simple descriptive model (derived from Williams, 1997) that demonstrates basic pest population dynamics and can be used to help guide strategy objectives and management programmes for individual pests. There is a strong relationship between where a pest sits on the invasion curve and the likelihood of controlling it. The invasion curve has four stages, which can be explained as follows:

- 1 **Absent:** These pests have not yet established in the Wellington Region, or all known sites have been eradicated. The most effective form of management is to continue to exclude them.
- 2 **Lag stage:** This is the initial slow establishment stage. Pest numbers are low, the rate of population increase is slow and the distribution of the species in the Wellington Region is limited. The most effective option during this stage may be eradication to prevent further establishment.
- 3 **Explosion stage:** This occurs once a pest has adapted to its environment and has reached a population base that allows rapid growth in population size and range. At this stage it is not realistic or cost-effective to eradicate the pest, but it may be possible to prevent further spread through containment.
- 4 **Established stage:** This stage occurs when the rapid growth in population size and range slows as the pest fills most of its available habitat. At this stage pests can only be suppressed to mitigate their impacts.

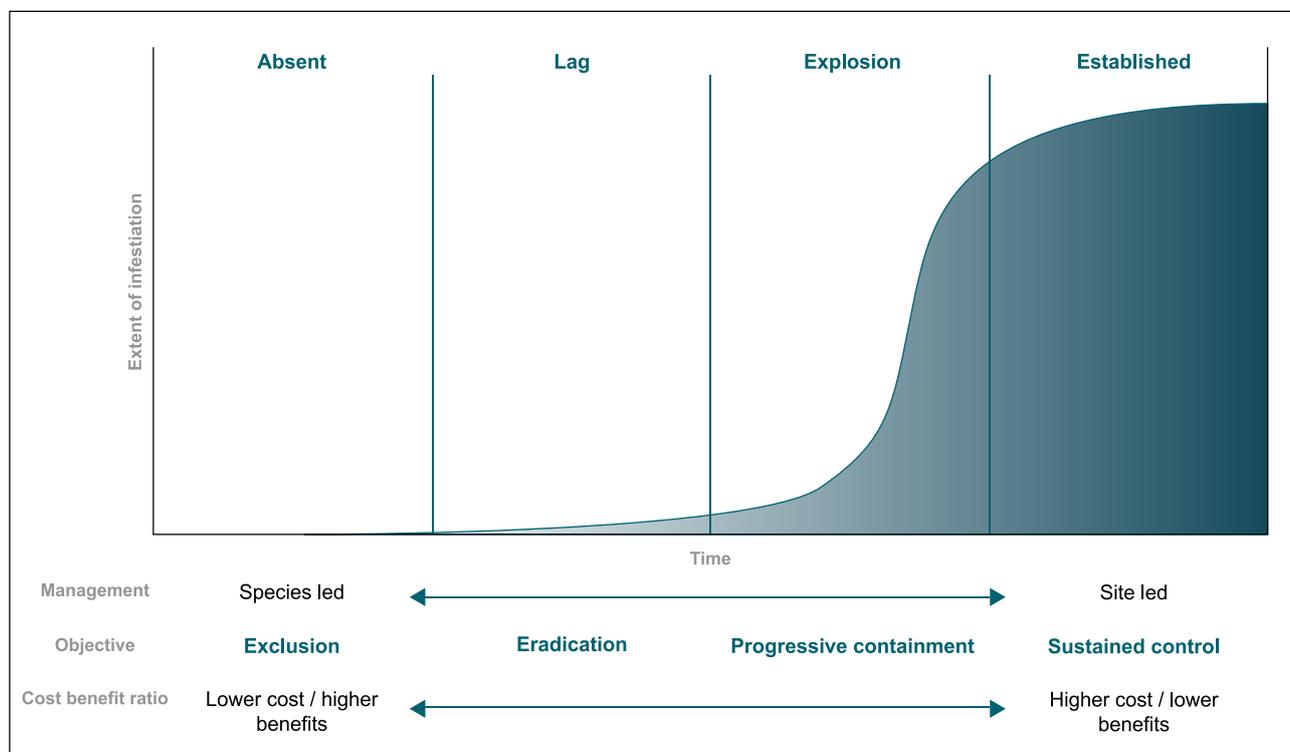


Figure 5: Invasion curve

4.5 Control methods and animal welfare issues

While managing pests and other harmful organisms during implementation of this Plan, Greater Wellington will comply with regulations and methodology prescribed in national best practice and relevant legislation relating to animal welfare for the use of agrichemicals and vertebrate toxic agents.

When planning pest control operations due consideration will be given to the methods that will achieve best control outcomes while taking into account animal welfare issues for the target and non-target organisms.

5 TARĀWAHO WHAKAHAERE KAUPAPA KOIORA OROTĀ PEST MANAGEMENT FRAMEWORK

5.1 Pest management programmes

One or more pest management programmes will be used to control pests and any other organisms covered by this Plan. The types of programmes are defined by the NPD and reflect outcomes in keeping with:

- The extent of the invasion
- Whether it is possible to achieve the desired control levels for the pests

The intermediate outcomes for the five programme types relevant to this Plan are described below.

- 1 **Exclusion programme:** To prevent the establishment of the subject, or an organism being spread by the subject, that is present in New Zealand but not yet established in an area.
- 2 **Eradication programme:** To reduce the infestation level of the subject, or an organism being spread by the subject, to zero levels in an area in the short to medium term.
- 3 **Progressive containment programme:** To contain or reduce the geographic distribution of the subject, or an organism being spread by the subject, to an area over time.
- 4 **Sustained control programme:** To provide for ongoing control of the subject, or an organism being spread by the subject, to reduce its impacts on values and spread to other properties.
- 5 **Site-led pest programme:** To ensure that the subject, or an organism being spread by the subject, that is capable of causing damage to a place is excluded or eradicated from that place, or is contained, reduced or controlled within the place to an extent that protects the values of that place.

5.2 Objectives

Objectives have been set for each pest or class of pests. As required by the NPD, the objectives include:

- The particular adverse effect(s) (section 54(a) of the Biosecurity Act) to be addressed
- The intermediate outcomes of managing the pest
- The geographic area to which the objective applies
- The level of outcome, if applicable
- The period for achieving the outcome
- The intended outcome in the first 10 years of the Plan (if the period is greater than 10 years)

5.3 Principal measures to manage pests

The principal measures used in the Plan to achieve the objectives are in four main categories. Each category contains a suite of tools to be applied in appropriate circumstances.

1 Requirement to act

Land owners and/or occupiers or other persons may be required to act where Plan rules dictate that:

- (a) Pests are to be controlled
- (b) The presence of pests is to be reported
- (c) Actions are to be reported (type, quantity, frequency, location, programme completion)
- (d) Pests are not to be spread (propagated, sold, distributed) and pathways are to be managed (e.g., machinery, gravel, animals)

2 Inspection and monitoring

Inspection and monitoring by Greater Wellington may include staff:

- (a) Visiting properties or doing surveys to determine whether pests are present or whether rules and management programmes are complied with, or to identify areas to which control programmes will apply (places of value, exclusion zones, movement control areas)
- (b) Managing compliance with regulations (rule enforcement, action on default, prosecution, processing of exemptions)
- (c) Taking limited control actions where doing so is effective and cost-efficient
- (d) Monitoring the effectiveness of control

3 Service delivery

Greater Wellington may deliver the service:

- (a) Where it is funded to do so within a rating district
- (b) On a user-pays basis
- (c) By providing control tools, including sourcing and distributing biological agents, provisions (e.g., traps, chemicals) or subsidies

4 Advocacy and education

Greater Wellington may:

- (a) Provide general-purpose education, advice, awareness-raising and publicity activities to land owners and/or occupiers and the public about pests and pathways (and control of them)
- (b) Encourage land owners and/or occupiers to control pests
- (c) Facilitate or fund community and land owner and/or occupier self-help groups and committees
- (d) Help other agencies with control, advocacy and the sharing or sourcing of funding
- (e) Promote industry requirements and best practice to contractors and land owners and/or occupiers
- (f) Encourage land owners and/or occupiers and other persons to report any pests they find or to control them
- (g) Facilitate or commission research into pest management

5.4 Alternative pest management arrangements

Greater Wellington may develop alternative management arrangements (e.g., management plans or memoranda of understanding) with agencies to establish agreed levels of service with those agencies, to act to control pests on

their land, or to defer enforcement actions on rules in this Plan in preference for pragmatic levels of service that achieve the objectives of the Plan.

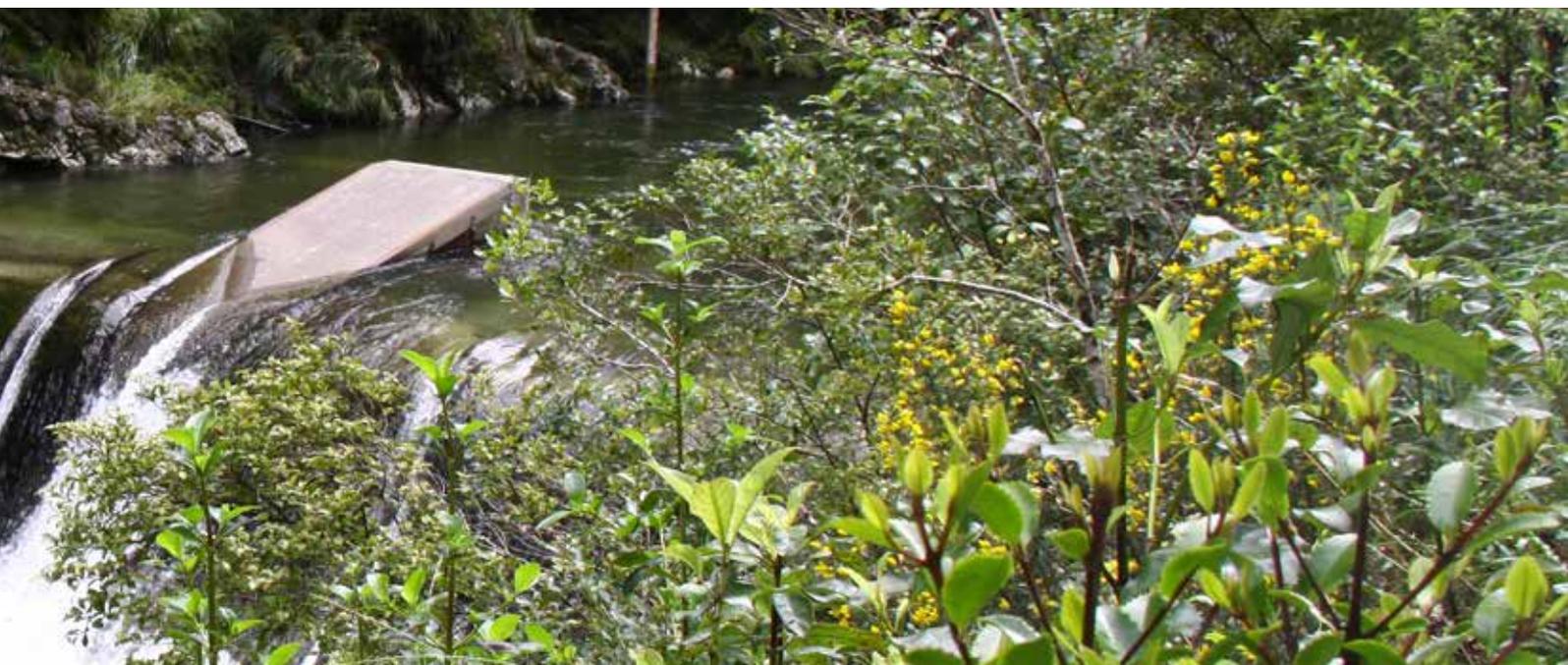
5.5 Rules

Rules play an integral role in securing many of the pest management outcomes sought by the Plan. They create a safety net to protect land owners and/or occupiers from the effects of the actions or inactions of others where non-regulatory means are inappropriate or do not succeed.

Section 73(5) of the Act prescribes the matters that may be addressed by rules, and the need to:

- (i) Specify if a rule is to be designated a Good Neighbour Rule
- (ii) Specify if breaching the rule is an offence under the Act
- (iii) Specify if an exemption to the rule, or any part of it, is allowable or not
- (iv) Explain the purpose of the rule

Rules can apply to land owners and/or occupiers or to a person's actions in general.



6 WHAKAMĀRAMA I NGĀ HŌTAKA OROTĀ ME NGĀ MAHERE

PEST DESCRIPTIONS AND PROGRAMMES

This section lists the pests to be managed under the Plan according to the programme(s) to which they are assigned. The Plan is required to describe, for each pest listed:

- Its adverse effects
- The reasons for a programme
- The objectives to be included in the programme (see section 5.2)
- The principal measures (including rules) to be used to achieve the objectives (see section 5.3)
- Any other measures that would be reasonable to take to achieve the objectives

6.1 Pests to be managed under exclusion programmes

The pests listed in Table 2 are not known to be present in the Wellington Region (outside of zoological facilities) and preventing their establishment is considered to be of benefit to the region. These pests have the potential to establish in the Wellington Region and may have adverse effects on its social, cultural, environmental and economic wellbeing and values. These pests can displace other

species, affecting pasture and native species, and their potential impacts on production and native ecosystems warrant the prevention of their establishment. Success in preventing their establishment is considered more likely under a planned and coordinated approach than through individual land owner/occupier responsibility.

Table 2: Pests to be managed under exclusion programmes

Common name	Scientific name
Plants	
Alligator weed	<i>Alternanthera philoxeroides</i>
Chilean needle grass	<i>Nassella neesiana</i>
Nassella tussock	<i>Nassella trichotoma</i>
Animals	
Wallaby (Bennett’s and dama)	<i>Macropus rufogriseus, Macropus eugenii</i>

6.1.1 Alligator weed (*Alternanthera philoxeroides*)



Description

Alligator weed is a perennial aquatic or terrestrial herb with long, fibrous roots. Stems root at nodes, are up to 10m long, usually pink, soft, hollow, creep along the ground or float on water with tips standing upright and form dense stands or rafts. Dark green, waxy leaves (3-13 x 1-4cm) are opposite. White, clover-like flowers in 1-2cm diameter clusters appear from December to February, but no seed is produced.



Adverse effects

Alligator weed rapidly forms dense mats over water and margins with roots to 2m deep. Stem sections break and root readily. It is tolerant of 30 percent sea water, high temperatures, high pollutant levels, grazing and other damage but intolerant of frost. It reproduces from stem sections only. Water flow, contaminated machinery, soil movement, dumped vegetation, eel nets, livestock, boats and trailers all spread fragments into new catchments, pastures, cropping land, waste places and drains.

6.1.2 Chilean needle grass (*Nassella neesiana*)



Description

Chilean needle grass is an erect, tufted, perennial grass that grows up to 1.2m tall. The leaves are up to 5mm wide, bright green and harsh. The flowers have a purple tinge and ripen into hard, sharp seeds with long, twisting tails. Seeds are up to 10mm long, with hard, sharply pointed heads and long (c.70mm), hair-like awns (tails). This species can be difficult to identify, especially when not flowering.



Adverse effects

Chilean needle grass can outcompete and displace desired pasture species and is expensive to control once it has infested an area. It should not be grazed during flowering and seeding, as it reduces the stock-carrying capacity of a property. Seeds contaminate wool and damage sheep pelts, leading to considerable economic losses. Lambs are particularly vulnerable to blindness from its seeds.

6.1.3 Nassella tussock (*Nassella trichotoma*)



Description

Nassella tussock is a tufted, perennial tussock grass with fine, tightly rolled, light green or yellowish-green leaves. The plants are erect when young but slightly drooping with age, and grow up to 70cm tall and 80cm wide. The stem is swollen just above ground level. Leaves do not break when pulled. The ligule is short (1-2mm), white, hairless and obvious when the blade is pulled from a younger leaf. Flower heads are open with a branched seed head 25-95cm long, and produced between November and January. Ripe seeds are purplish with 3cm-long bristles. Roots are deep, matted and fibrous.



Adverse effects

Nassella tussock can be extremely invasive, totally dominating low-producing grassland. Pasture-carrying capacity can be significantly reduced because the leaves are unpalatable and indigestible. Sheep avoid grazing mature tussocks, but can graze younger plants. Because of its poor nutritional quality, sheep can lose condition on infested pastures. If forced to eat tussock, they will lose weight and can die as they cannot properly digest the leaves. *Nassella tussock* seeds can contaminate and damage fleeces and hides of sheep, adding to production losses.

6.1.4 Wallaby (*Macropus rufogriseus*, *M. eugenii*)



Description

Wallaby are kangaroo-like marsupial animals standing 0.5m (dama) to 1.5m (Bennett's) tall with tails as long as half their height. They range in weight from approximately 5kg to in excess of 20kg. Their fur colour varies from grey to reddish brown.



Adverse effects

Wallabies are capable of causing significant adverse environmental effects. These include preventing the regeneration of native bush and depleting forest understorey, and possible impacts on water quality. They can damage tall tussock grasslands, including the inter-tussock vegetation, which can become depleted with a consequent increase in bare ground and a higher risk of soil erosion. Pasture and feed crops are grazed, particularly in situations where suitable wallaby cover is adjacent. Exotic forests can be damaged, especially in their establishment stage.

Objective

Over the duration of the Plan, prevent the establishment of:

- (i) Alligator weed, Chilean needle grass, Nassella tussock and wallabies

in the Wellington Region in order to protect the environmental and cultural values and economic wellbeing of the Wellington Region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

- Greater Wellington staff and/or its contractors will conduct searches in areas that are vulnerable to infestation by exclusion species. Council staff will undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions.

Service delivery

- Eradication of exclusion species will be attempted by Greater Wellington in conjunction with relevant Crown agencies and stakeholders where practicable.

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders to help them identify exclusion plants and assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of exclusion plants

Considerable emphasis will be placed on developing partnerships with other organisations and community groups that have expertise or an interest in protecting the environment.

Rules

- 1 No person shall possess any pest included in Table 2 (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Act.

- 2 Any person who sees, or suspects the presence of, any pest included in Table 2 in the Wellington Region shall report the sighting or suspected presence to Greater Wellington within 5 working days.

Explanation of rules

Rules 1 and 2 are to assist in preventing exclusion species from becoming established in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Upon application, the Wellington Regional Council will consider issuing an exemption under section 78 of the Act to provide for the keeping of any wallaby for zoological purposes.

6.2 Pests to be managed under eradication programmes

The eradication programme covers organisms that are present in the Wellington Region but infestations are limited in size or density, or eradication is deemed feasible and is a cost-effective solution to prevent the species from becoming entrenched to protect future production or environmental values.

The programme involves regular ongoing control to reduce infestation levels of the pests, in the short to medium term, to zero density levels across the Wellington Region and across all habitats and properties. Greater Wellington has determined it is appropriate to be the lead agency or partner for eradicating these pests from the Wellington Region.

Table 3: Pests to be managed under eradication programmes

Common name	Scientific name
Plants	
Moth plant	<i>Araujia hortorum</i>
Senegal tea	<i>Gymnocoronis spilanthoides</i>
Spartina	<i>Sporobolus anglicus</i> , <i>S. alterniflorus</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Woolly nightshade	<i>Solanum mauritianum</i>
Animal	
Rook	<i>Corvus frugilegus</i>

Eradication programme for plants

6.2.1 Moth plant (*Araujia hortorum*)



Description

Moth plant is a perennial, broad-leaved, herbaceous climber and can grow to over 5m tall. Dark green leaves (3-12cm x 2-6cm) are hairless and dull on the top, greyish-downy underneath, and opposite on the stems. Clusters of two to four bell-shaped, white flowers (20-25mm diameter), occasionally with pink streaks, appear from December to May, followed by distinctive thick, leathery, pear-shaped pods which split open to disperse many black, thistledown-like seeds. Stems and pods produce a milky sap that is toxic to humans and animals. Each pod contains hundreds of seeds.

Adverse effects

Moth plant smothers and replaces native species, preventing regeneration in a range of habitats. The milky-white sap can cause skin irritations in susceptible people and the seeds are poisonous.

6.2.2 Senegal tea (*Gymnocoronis spilanthoides*)



Description

Senegal tea is a hardy, semi-aquatic, perennial herb that can grow up to 1.5m tall, with fine, fibrous roots. It has the ability to grow aurally from stem nodes. The stems are hollow and float and can take root at nodes, resulting in new plants easily forming from broken fragments. Leaves are dark green, slightly waxy, lance shaped and serrated and are paired with opposite stalks joined at the stem. Flowers are produced from November to April and are clover-like with many thin, white florets, followed by yellow-brown seeds. Senegal tea is dormant over winter and dies back to rootstock if chilled, but re-sprouts over spring.



Adverse effects

Senegal tea is an aggressive aquatic plant that inhibits wetlands, ponds and streams by forming dense, floating mats that quickly cover waterways. It can exclude desirable native aquatic plants in these ecosystems, therefore affecting native biodiversity.

It can block drainage channels, causing flooding, and can affect recreational activities and irrigation. It spreads through both vegetative fragmentation and seed dispersal. Heavy infestations and the rotting of dead plants have been found to diminish the oxygen available to fish and other aquatic organisms.

6.2.3 Spartina (*Sporobolus anglicus*, *S. alterniflorus*)



Description

Spartina is an aquatic plant inhabiting waterway margins, growing up to 1m tall in brackish or fresh water. Its leaves vary in colour from yellow to green to brown and are erect, cord-like grasses of varying sizes. It has an extensive rhizome root system with underwater/ground creeping stems. It is usually found in inter-tidal zones of estuaries and salt marshes, but may be found in wetland and on stream edges.



Adverse effects

Spartina restricts water movement and causes sediment build-up in waterways, increasing the risk of flooding. It also displaces native plants in waterways by outcompeting them for light, nutrients and space. It is spread in many ways, including through water, wind, machinery, animals and people. Broken fragments re-sprout easily. It tolerates all weathers and temperatures, fire, grazing and other damage. It may also affect recreational fisheries and kai moana gathering sites for Māori.

6.2.4 Velvetleaf (*Abutilon theophrasti*)



Description

Velvetleaf is an aggressive, annual, broad-leaved herb that usually grows 1-2.5m tall, although at one of the Wairarapa sheep and beef farms, all mature plants (bearing flowers) found were at a height of 20-30cm. Its buttery-yellow flowers occur in spring to autumn, producing a capsule that consists of a cup-like ring formed by 12-15 woody segments, and is about 2.5cm in diameter. Leaves are large and heart-shaped and velvety to touch



Adverse effects

A recent incursion to New Zealand, it aggressively competes with crops for nutrients and water. Seedlings are vigorous and the plants grow rapidly in the first few months after germination. It is regarded as the worst cropping weed in the United States, so could be detrimental to farming practices if it established in the region.

6.2.5 Woolly nightshade (*Solanum mauritianum*)



Description

Woolly nightshade is a fast-growing, kerosene-smelling shrub or small tree growing up to 10m tall with all parts covered in dusty hairs, and whitish, branching, soft-woody stems. Velvety, oval, grey-green leaves (10-35cm x 3-15cm) are whitish underneath with prominent 'ears' (25mm) at base, which clasp the stem. Dense clusters of mauve to purple flowers (15-20mm diameter) with yellow anthers appear from January to December, followed by clusters of round berries (1cm diameter) that ripen from hard green to soft, dull yellow.



Adverse effects

Woolly nightshade invades productive land and prevents the regeneration of native plant species. This plant is allelopathic (produces toxins that poison the soil), forming dense, often pure stands that outcompete most other species. Woolly nightshade is poisonous and handling the plants can cause irritation and nausea.

Objective

Over the duration of the Plan, destroy all infestations of moth plant, Senegal tea, spartina, velvetleaf and woolly nightshade within the Wellington Region, prior to seed set, to prevent adverse effects on economic wellbeing and the environment of the region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct inspections, monitoring or surveillance in areas that are vulnerable to infestations of eradication species to determine the presence of any new infestation and the status of existing or historical sites
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of eradication species

Service delivery

Greater Wellington:

- Staff and/or its contractors will undertake direct control of eradication species by service delivery at all known sites
- Will assist in the release of biocontrol agents for eradication species where appropriate

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 No person shall possess any moth plant, Senegal tea, spartina, velvetleaf or woolly nightshade (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 2 An occupier shall, upon receipt of a written direction from an authorised person, destroy* any moth plant, Senegal tea, spartina, velvetleaf or woolly nightshade present on the land they occupy.

**For the purpose of this rule, destroy means the permanent preclusion of the plant's ability to set viable seed.*

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 3 Any person who sees, or suspects the presence of, any pest plant included in Table 3 in the Wellington Region shall report the sighting to Greater Wellington within 10 working days.

Explanation of rules

Rules 1, 2 and 3 are to assist in preventing the further spread of, and to control these plants in the Wellington Region.

Rule 2 allows Greater Wellington to choose the most appropriate method of control for eradication of the species based on best industry practices. Where landowners/occupiers do not consider this applicable to their situation and they fail to undertake control, they will be issued a written direction to undertake the work at their expense. Such work must achieve a standard of control acceptable to Greater Wellington.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Eradication programme for animals

6.2.6 Rook (*Corvus frugilegus*)



Description

Rooks are large, black birds (30-50cm tall) with a violet-blue, glossy tint. They can be identified by their distinctive harsh “KAAH” call. They live conspicuously in breeding colonies or rookeries generally built in pine or eucalyptus trees. A typical rookery in the Wellington Region contains about 20 nests. Rooks are easily disturbed and can become very wary and bait shy. This makes control difficult and can lead to rookeries fragmenting, with birds colonising new areas.

In 2017/18 eight active rookeries were treated by aerial application. All rookeries were situated rurally in northern Wairarapa to the north of Masterton and below the regional boundary. Geographically the spread was from the east coast (Castlepoint) to the eastern side of Pūkaha

Mount Bruce National Wildlife Centre. A small number of rooks are still known to exist in South Wairarapa, where they have been established for many years, but no active breeding colonies were detected when a comprehensive survey was undertaken in 2017. They have been present along parts of the east coast between north and South Wairarapa but none was detected south of Castlepoint during the 2017 survey.

Adverse effects

In summer, when the ground becomes too hard to extract insects, rooks assemble into large groups and target large food supplies such as maize, peas, squash, green feed and cereal crops, nuts, freshly ploughed earth and newly germinating crops, often causing extensive damage to these crops.

Objective

Over the duration of the Plan:

- eradicate all rooks from the region
- have no active rookeries within 10 years of the commencement of the Plan

to prevent adverse effects on economic wellbeing and the environment in the Wellington Region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	--------------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Land occupiers will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington will:

- Survey rook populations annually in areas where they are known to exist, and where new infestations are reported
- Annually inspect pet shops and rook keepers for the sale and/or breeding of rooks

Service delivery

Greater Wellington will:

- Undertake direct control by service delivery where rooks are known to exist

Advocacy and education

Greater Wellington will:

- Encourage the Horizons Regional Council to actively pursue management of rooks within their region that complements Greater Wellington's eradication programme
- Support appropriate research initiatives, including biological control should it become available
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 Other than under the direction or supervision of an authorised person, no person shall:
 - (i) possess any living rook
 - (ii) poison, capture or trap any rook
 - (iii) discharge any firearm at any rook; or
 - (iv) damage, disturb or interfere in any way with a rookery

A breach of these rules will create an offence under section 154N(19) of the Biosecurity Act.

- 2 Occupiers in the Wellington Region shall notify Greater Wellington of the presence of rooks and/or rookeries on land that they occupy within 10 working days.

Explanation of rules

Rule 1 is to prevent mismanaged control attempts by occupiers that may result in the dispersal of the birds and a further spread of the problem, and allows Greater Wellington to undertake the necessary action for control.

Rule 2 will assist Greater Wellington in monitoring new infestations of rooks and implementing controls before they become well established at the new locations.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Upon application, Greater Wellington will consider issuing an exemption under section 78 of the Act to provide for the keeping of a rook, or rooks, for zoological purposes.



Man-made wetland at Queen Elizabeth Park.

6.3 Pests to be managed under progressive containment programmes

Progressive containment species are species that are well established in the Wellington Region but with present infestation levels that are low enough for those levels to be reduced region-wide through a progressive containment programme.

In some cases, progressively containing a species will result in fewer sites infested with the species, or, in others, the overall density of the species will be reduced over a 20-year period. The long-term outcome (greater than 20 years) for pests under this programme could also result in eradication.

Table 4: Pests under progressive containment programmes

Common name	Scientific name
Plant	
Purple loosestrife	<i>Lythrum salicaria</i>
Wilding conifers – European larch, Douglas fir and pine species	<i>Larix decidua</i> , <i>Pseudotsuga menziesii</i> , <i>Pinus spp.</i>

6.3.1 Purple loosestrife (*Lythrum salicaria*)



© Weedbusters



© Weedbusters

Description

Purple loosestrife is a herbaceous, erect, hairy perennial that grows up to 2m tall with purple flower spikes, a taproot and fibrous roots. It can form dense surface mats and produce up to 50 stems per rootstock. Stems are four- to eight-sided and pink at the base and die off in winter. The narrow leaves are normally paired. Between December and February a densely hairy flower head spike (20-25cm long) is produced, made up of purple-magenta flowers with five or six petals. These are followed by blackish seed capsules 3-5mm in length.

Adverse effects

Purple loosestrife is capable of invading a variety of wetland habitats, including river and stream banks, pond edges, lakes, roadside ditches and reservoirs. It primarily threatens wetland and riparian habitats characterised by slack water. It prefers moist soil – however, once established a population can tolerate a change in soil conditions. Disturbed areas are more prone to invasion because exposed soil is ideal for germination.

It has a strong ability to rapidly outcompete native wetland species, therefore reducing biodiversity at wetland sites. Tall, dense stands can reduce recreation opportunities.

Objective

Over the duration of the Plan, progressively contain and reduce the geographic distribution or extent of purple loosestrife in wetlands or waterbodies identified as specific outstanding waterbodies and wetlands in the Natural Resources Plan (NRP) for the Wellington Region (Schedule A, B, C1-2), to protect the Wellington Region's indigenous environmental and cultural values, specifically wetland habitats with native wetland biodiversity. See the maps in Chapter 13 of the NRP for more information: www.gw.govt.nz/nrp-maps.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
Principal measures to achieve objective				
Requirement to act		Rules		
<ul style="list-style-type: none">Every person will comply with the rules specified in this section of the Plan.		<ol style="list-style-type: none">No person shall possess any purple loosestrife (including any seeds or live vegetation) within the Wellington Region. A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.		
Inspection and monitoring		<ol style="list-style-type: none">Occupiers within the Wellington Region shall, upon receipt of a written direction from an authorised person, destroy* all purple loosestrife plants on land they occupy within an area that is classified as a natural or outstanding wetland or waterbody under an operative Natural Resources Plan for the Wellington Region. <i>*For the purposes of this rule, destroy means the permanent preclusion of the plant's ability to set viable seed.</i> A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.		
Greater Wellington:				
<ul style="list-style-type: none">Staff and/or its contractors may conduct inspections, monitoring or surveillance in areas that are vulnerable to infestation of purple loosestrife to determine the presence of any new infestations and the status of existing or historical sitesStaff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptionsStaff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of purple loosestrife				
Service delivery		<ol style="list-style-type: none">Any person who sees, or suspects the presence of, purple loosestrife shall report the sighting or suspected presence to Greater Wellington within 10 working days.		
Greater Wellington:		Explanation of rules		
<ul style="list-style-type: none">Staff and/or its contractors will undertake the initial direct control of purple loosestrife by service delivery at wetland and waterbody sites classified as natural or outstandingWill assist in the release of biocontrol agents for purple loosestrife species where appropriate		Rules 1 and 3 are to assist in preventing purple loosestrife from becoming further established in the Wellington Region.		
Advocacy and education		Rule 2 outlines the requirement for occupiers within the Wellington Region to take specified actions to prevent the pest from establishing on that land.		
Greater Wellington will:		Advice note		
<ul style="list-style-type: none">Provide training to relevant staff and stakeholders in the identification of pests to assist in early detectionProvide advice, attend events and undertake publicity campaigns to increase public awareness of pests		Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.		

6.3.2 Wilding conifers – European larch (*Larix decidua*), Douglas fir (*Pseudotsuga menziesii*) and pine species (*Pinus spp.*)



cc Wikimedia, Walter Siegmund

Description

Wilding conifers are defined as any introduced conifer tree, including (but not limited to) any of the species listed in Table 5, established by natural means, unless it is located within a forest plantation, and does not create any greater risk of wilding conifer spread to adjacent or nearby land than the forest plantation that it is a part of.

One of the key challenges associated with the management of wilding conifers is that while wilding conifers are a pest, planted conifers are a valuable resource. This highlights the importance of recognising the considerable value of planted and responsibly managed conifers, and clearly distinguishing these from naturally regenerated wilding conifers, which can pose a threat to a range of environmental, economic, aesthetic, recreational and other values. The wilding conifer definition incorporates all 10 of the most spread-prone conifer species, but specifically applies only to those trees that are naturally regenerated, rather than intentionally planted. For the purposes of this programme, a forest plantation is an area of 1 hectare or more of predominantly planted trees.

Wilding conifers are usually found in alpine and sub-alpine areas, hence their presence in parts of the northern margins of the Remutaka ranges. Owing to their hardiness, wilding conifers have been used as a shelter belt species throughout the region.



cc Wikimedia, Walter Siegmund

Adverse effects

Wilding conifers can have significant impacts on native ecosystems, particularly those with low-stature vegetation. Wilding conifers grow faster and taller than low-stature native plants and so can shade out many of these species. Where there is dense wilding conifer growth, this can lead to local extinction of native plant communities, the drying of wetlands and riparian areas, and resulting impacts on native fauna through the loss of habitat. Soil and soil fauna are also altered when wilding conifers replace native ecosystems.

Most wilding conifer species do not pose a significant threat to established native forests; however, Douglas fir has a higher shade tolerance than other introduced conifer species and consequently wilding Douglas fir is able to spread into shrub lands, regenerating native forest and mature forest where there are canopy gaps and a relatively sparse understorey.

Wilding conifers can adversely affect amenity and landscape values, particularly where the valued landscapes are characterised by extensive low-stature vegetation such as high country tussock grasslands. These landscapes are important for tourism and large-scale landscape changes could impact on this. Dense wilding conifer spread can lead to the blocking and/or changing of valued views and vistas, and can impede access to, and enjoyment of, recreational areas.

In areas where there is long-term, seasonal soil moisture deficits, dense wilding conifers can contribute to reductions in surface water flows, potentially impacting on water availability and aquatic ecosystems. Wilding conifers can also increase the risk posed by wild fires.

In areas of extensive pastoral farming, wilding conifer infestations adversely impact economic wellbeing by reducing available grazing land and limiting future land use options due to the high costs of control.

Table 5: Listed wilding conifer species

Common name	Scientific name
European larch	<i>Larix decidua</i>
Douglas fir	<i>Pseudotsuga menziesii</i>
Pine species	
Bishops pine	<i>Pinus muricata</i>
Contorta or lodgepole pine	<i>Pinus contorta</i>
Corsican pine	<i>Pinus nigra</i>
Dwarf mountain pine	<i>Pinus mugo</i>
Maritime pine	<i>Pinus pinaster</i>
Mountain pine	<i>Pinus uncinata</i>
Ponderosa pine	<i>Pinus ponderosa</i>
Radiata pine	<i>Pinus radiata</i>
Scots pine	<i>Pinus sylvestris</i>

Special interest species: Contorta (lodgepole) pine, Scots pine, dwarf mountain pine and mountain pine

Wilding conifers often occur as a result of seed spread from planted conifer trees. It can be difficult to successfully control or manage the spread of wilding conifers over the long term if the seed source is not removed or appropriately managed and contained. This set of conifers has very limited commercial value and they are also highly invasive. It is therefore important to specify these organisms as pests in their own right, in addition to being pests under the wilding conifer definition in their naturally regenerated state. This is to prevent new plantings of these species, as well as enabling regulatory

controls requiring removal of these species in situations where they are planted but pose a wilding conifer spread risk as a result of the spread of their seed.

Contorta, in particular, is the most invasive introduced conifer species and represents a significant proportion of all wilding conifers and original sources of wilding conifer spread, and therefore it will be managed region-wide.

Wilding conifers are not currently known to be established and causing wilding conifer issues in the Wellington Region because of the limited number of lowland forests and intensive grazing. A progressive containment area has been created (Map 4) to prevent these conifers from establishing in high-risk areas.

Objective

Over the duration of the Plan, progressively contain and reduce the geographic distribution or extent of wilding conifers in the high-risk areas of the alpine and sub-alpine zone of Remutaka ranges.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct inspections, monitoring or surveillance in areas that are vulnerable to infestation of wilding conifers to determine the presence of any new infestations and the status of existing or historical sites
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of:
 - (a) Contorta (lodgepole) pine
 - (b) dwarf mountain pine
 - (c) mountain pine
 - (d) Scots pine

Service delivery

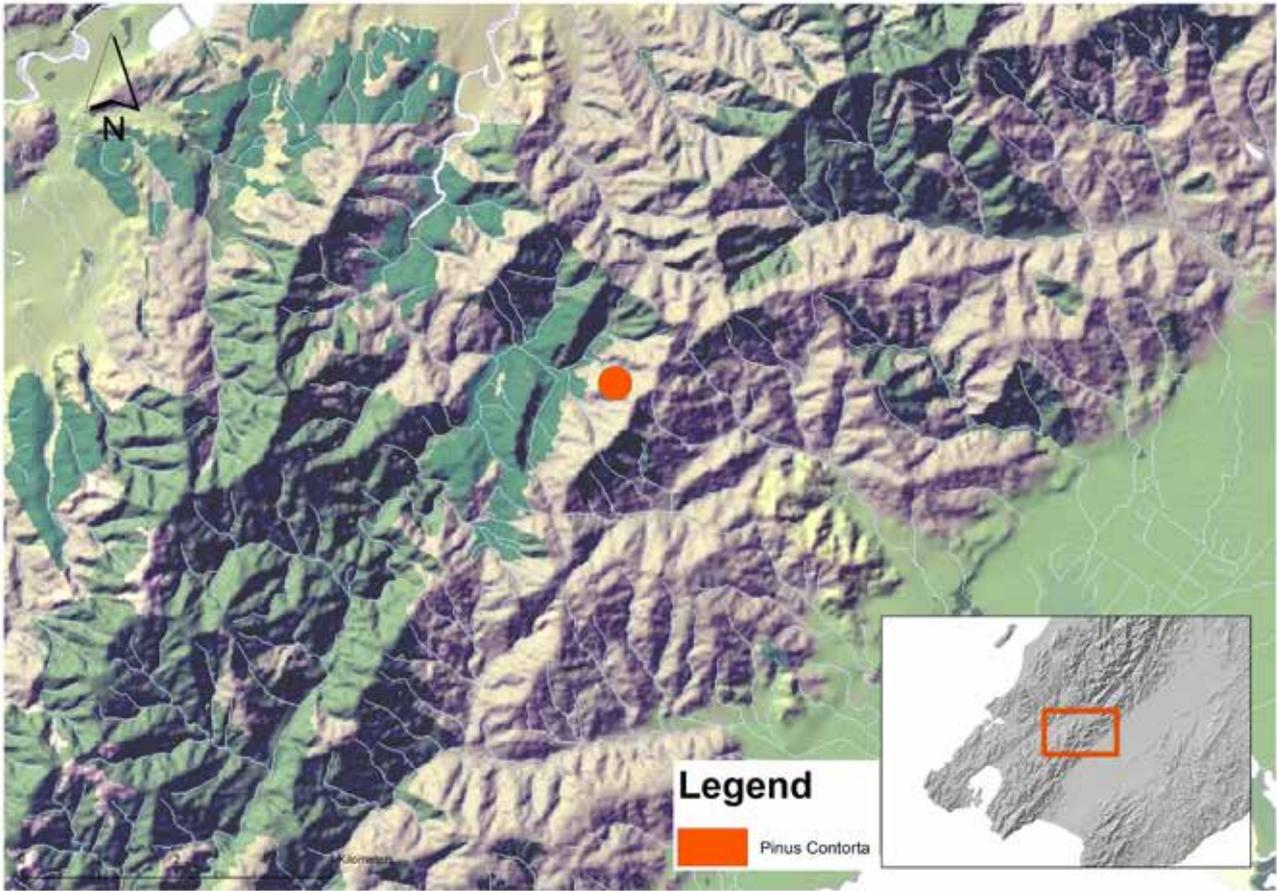
Greater Wellington:

- Staff and/or its contractors will undertake the initial direct control of wilding conifers by service delivery at sites classified as natural, significant, outstanding or high value

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests



Map 4: Progressive containment area for wilding conifers

Rules

- 1 An occupier of land shall:
 - (a) Destroy* all contorta plants on their land prior to cone bearing
 - (b) Destroy* all wilding conifers present on land they occupy prior to cone bearing, if:
 - (i) The wilding conifers are located within an area which has had control operations carried out to destroy wilding conifers or any other planted conifer species that were causing the spread of wilding conifers

The control operations were publicly funded (either in full or in part)

**For the purposes of this rule, destroy means the permanent preclusion of the plant's ability to set viable seed.*

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 2 Any person who sees, or suspects the presence of, wilding conifers shall report the sighting or suspected presence to Greater Wellington within 10 working days.

Explanation of rules

Rule 1 assists in preventing wilding conifers from becoming further established in the Wellington Region.

Rule 2 outlines that occupiers within the Wellington Region are required to take specified actions to prevent the pest from establishing on that land following initial control.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

6.4 Pests to be managed under sustained control programmes

A number of pests are well established in the Wellington Region, of which many have been subject for some time to various control activities. If left uncontrolled they all cause adverse effects on the environmental, economic, social and cultural values of the Wellington Region. While the spread between neighbouring properties of these pests remains the predominant risk, in some cases control within properties is still warranted. The sustained control programme will at least hold populations to current levels

(or maximum acceptable limits) over the period of the Plan. The identified pests are listed in Table 6.

Sustained control will apply under two separate circumstances:

- Within a property to protect values within that property
- Within a boundary zone to prevent spread between properties

Table 6: Pests to be managed under sustained control programmes

Common name	Scientific name
Plants	
Blue passionflower	<i>Passiflora caerulea</i>
Boneseed	<i>Chrysanthemoides monilifera</i>
Climbing spindleberry	<i>Celastrus orbiculatus</i>
Eelgrass	<i>Vallisneria spiralis</i> , <i>V. gigantea</i>
Animals	
Feral rabbit	<i>Oryctolagus cuniculus</i>
Wasps (common, German, Australian and Asian paper wasp)	<i>Vespula vulgaris</i> , <i>V. germanica</i> , <i>Polistes humilis</i> , <i>P. chinensis</i>

Sustained control programme for plants

6.4.1 Blue passionflower (*Passiflora caerulea*)



Description

Blue passionflower is a vigorous evergreen, high-climbing vine growing up to 10m with long stems that are hairless and angular when young and have spiralling tendrils. Leaves are very thin and five-lobed almost to the base, with each lobe 3-8cm long and narrow. Hanging whitish-purple flowers (6-9cm diameter) with purple filaments are produced from December to April, followed by hanging, round fruit (3-5cm diameter) that ripens from green to yellow, has small amounts of inedible pulp and contains silver-brown seeds (4mm long). It tolerates damage, drought, hot to cold temperatures and moderate shade. Habitat consists of disturbed and open forest, light wells and margins of intact bush, stream sides, coastline and cliffs.

Objective

Over the duration of the Plan, sustainably control blue passionflower within the Wellington Region in order to minimise adverse effects on native biodiversity, the economy, the environment and the enjoyment of the natural environment.

Adverse effects

Blue passionflower disperses effectively, grows quickly to medium to high canopy forming large masses. It is a smothering and suffocating vine spread via birds and possums eating its fruit. It easily smothers native populations, prevents seedling establishment and covers the canopy, reducing light penetration. It can grow from layering (when stems touch the ground and throw new roots) and can establish far from parent plant.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	--------------------------	----------

Principal measures to achieve objective

Requirement to act

- Land occupiers will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct searches in areas that are vulnerable to infestation of blue passionflower
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of blue passionflower

Greater Wellington will:

- Undertake direct control of blue passionflower by service delivery at all known sites within the Wellington Region
- Assist in the release of biocontrol agents for blue passionflower where appropriate

Service delivery

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 No person shall possess any blue passionflower (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 2 Any person who sees, or suspects the presence of, blue passionflower within the Wellington Region shall report the sighting or suspected presence to Greater Wellington within 10 working days.

Explanation of rules

Rules 1 and 2 are to assist in preventing the further spread of, and to control, blue passionflower in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.



Some of the area along the South coast in our region receives extra pest plant and pest animal protection, to preserve this special environment.

6.4.2 Boneseed (*Chrysanthemoides monilifera*)



Description

Boneseed is a bushy, semi-woody shrub that grows up to 3m tall. Leaves are light green, leathery and covered in fine hairs, giving them a whitish appearance. Flowers from September to February are bright yellow and daisy-like. These are followed by clusters of hard, green, oval fruit that ripen to black. Plants can produce 50,000 seeds annually.

Objective

Over the duration of the plan, sustainably control boneseed in sites of non-productive coastal habitats to reduce the adverse effects on indigenous species and environmental values in special coastal communities.

Adverse effects

Boneseed can rapidly invade coastal areas and displace low-growing native vegetation, and seriously affect highly valued native coastal ecosystems. Its dense colonies prevent regeneration of native species.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct inspections, monitoring and surveillance in areas that are vulnerable to infestation of boneseed to determine the presence of any new infestation and the status of existing or historical sites
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of boneseed

Service delivery

Greater Wellington will:

- Undertake direct control of boneseed by service delivery within non-productive coastal habitats. Primary production land is excluded
- Control boneseed on selected urban or residential sites to provide a buffer for the coastal habitats under control
- Assist in the release of biocontrol agents for boneseed where appropriate

Greater Wellington may conduct control of boneseed outside the respective coastal zone and/or on public land under non-regulatory, site-led management programmes or community initiatives, at Greater Wellington's discretion.

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 No person shall possess any boneseed (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

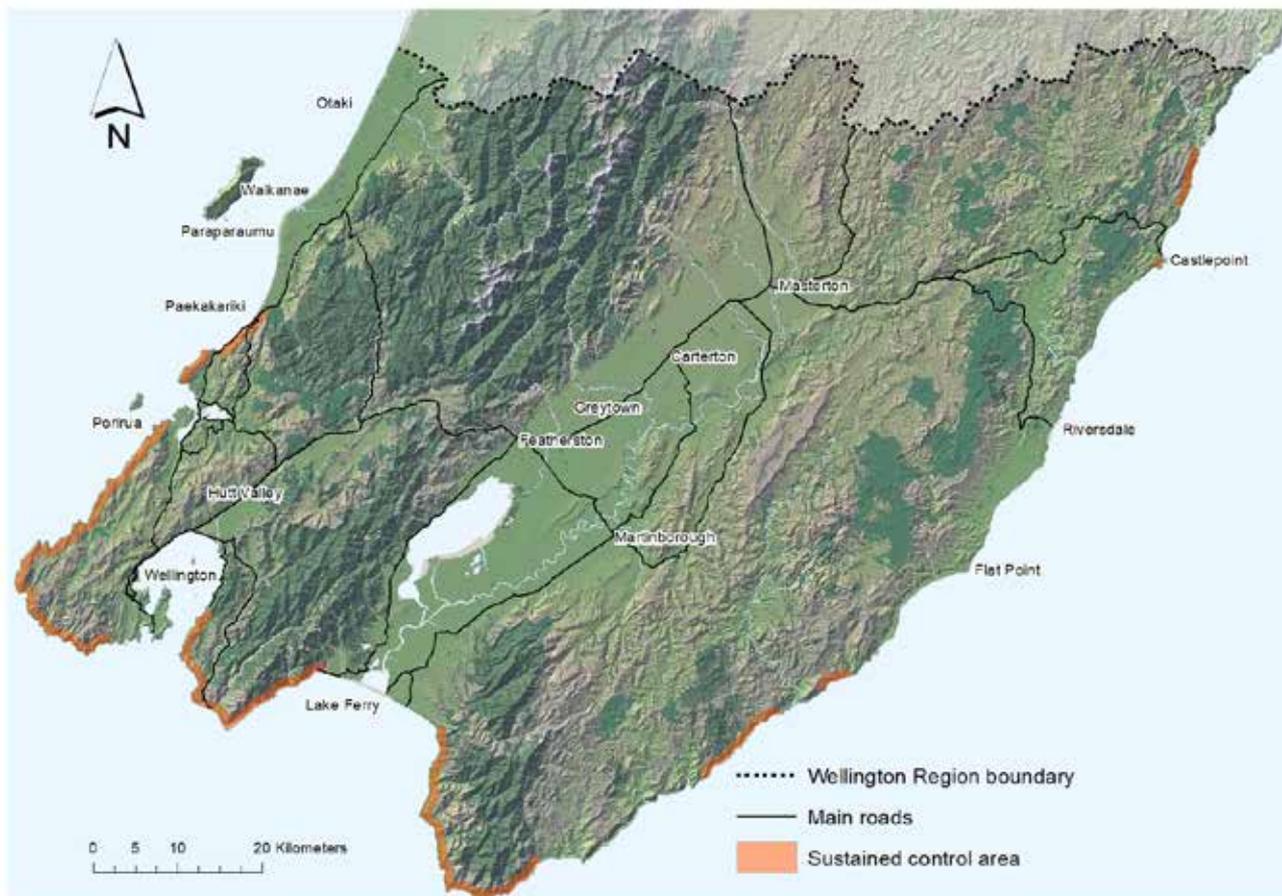
- 2 Occupiers who see, or suspect the presence of, boneseed on land they occupy in the Wellington Region shall report the sighting or suspected presence to Greater Wellington within 10 working days.

Explanation of rules

Rules 1 and 2 are to assist in preventing the further spread of, and to control, boneseed in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.



Map 5: Map of the boneseed sustained control programme area

6.4.3 Climbing spindleberry (*Celastrus orbiculatus*)



Description

Climbing spindleberry is a deciduous, perennial, twining climber with woody stems that can grow up to 12m high. The leaves are alternate, up to 10cm long and finely serrated. Young twigs are green and can produce long, sharp spines. Small, pale green flowers are followed by yellow and red berries. Stems can take root when they contact the ground.

Adverse effects

Climbing spindleberry is very invasive, spreading by stem fragments and by seed. It seeds prolifically and is shade tolerant, allowing it to establish and spread quickly, forming dense colonies that compete with other plant species for soil, moisture, nutrients and light.

Once established, climbing spindleberry is difficult to control.

Climbing spindleberry represents a particular threat to indigenous biodiversity and, to a lesser extent, plantation forests. It can compete with and replace indigenous plants in disturbed or low forest, and on forest and riparian margins. Its density can affect the regeneration of indigenous flora, topple and kill small trees, and suppress desirable groundcovers.

Objective

Over the duration of the Plan, sustainably control climbing spindleberry within the Wellington Region to less than or equal to 2014 levels, in order to minimise adverse effects on native biodiversity, the economy, the environment and the enjoyment of the natural environment.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Land occupiers will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct searches in areas that are vulnerable to infestation of climbing spindleberry
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions

- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of climbing spindleberry

Service delivery

Greater Wellington will:

- Undertake direct control of climbing spindleberry by service delivery at all known sites within the Wellington Region
- Assist in the release of biocontrol agents for climbing spindleberry where appropriate

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 No person shall possess any climbing spindleberry (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 2 Any person who sees, or suspects the presence of, climbing spindleberry within the Wellington Region shall report the sighting or suspected presence to Greater Wellington within 10 working days.

Explanation of rules

Rules 1 and 2 are to assist in preventing the further spread of, and to control, climbing spindleberry in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

6.4.4 Eelgrass (*Vallisneria spiralis*, *V. gigantea*)



Description

Eelgrass is an aquatic plant that can grow to a depth of 9m in fresh water. Leaves vary from light green to brown, but are usually green in long, strap-like form and are slimy to touch. The rhizome roots easily form new plants, which form dense masses and can block waterways and cause sediment build-up.

Adverse effects

Eelgrass is an invasive aquatic species that spreads by rhizomes and forms dense beds that displace native vegetation. It can block still and flowing waterways, causing flooding.

Objective

Over the duration of the Plan, sustainably control eelgrass in wetlands or waterbodies identified as specific outstanding waterbodies and wetlands in the Natural Resources Plan for the Wellington Region (Schedules A, B, C1, C2), to protect the Wellington Region's indigenous environmental and cultural values, specifically wetland habitats with native wetland biodiversity. See the maps in Chapter 13 of the NRP for more information: www.gvt.govt.nz/nrp-maps.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	--------------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may conduct searches in areas that are vulnerable to infestation of eelgrass
- Staff may undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Staff shall inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of eelgrass

Service delivery

Greater Wellington will:

- Undertake direct control of eelgrass by service delivery in wetlands and waterbodies identified as natural or outstanding in the Natural Resources Plan for the Wellington Region
- Assist in the release of biocontrol agents for eelgrass where appropriate

Advocacy and education

Greater Wellington will:

- Provide training to relevant staff and stakeholders in the identification of pests to assist in early detection
- Provide advice, attend events and undertake publicity campaigns to increase public awareness of pests

Rules

- 1 No person shall possess any eelgrass (including any seeds or live vegetation) within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

- 2 Any person who sees, or suspects the presence of, eelgrass within the Wellington Region shall report the sighting or suspected presence to Greater Wellington within 10 working days.

Explanation of rules

Rules 1 and 2 are to assist in preventing the further spread of, and to control, eelgrass in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Sustained control programme for animals

6.4.5 Feral rabbit (*Oryctolagus cuniculus*)



Description

The feral European rabbit is a small mammalian herbivore, grey-brown (sometimes black) in colour, ranging in length from 34cm to 50cm and weighing approximately 1.1-2.5kg. It has long ears, large, powerful hind legs to facilitate hopping movement, and a short, fluffy tail.

While some may live for up to seven years, the lifespan is generally much shorter, with high rates of natural mortality among young animals. They have a high capacity for reproduction and female rabbits (does) may be pregnant for 70 percent of a year. They breed continually throughout the year, with adult females able to produce 45-50 young yearly. Most feral rabbits are easily distinguished from domesticated breeds.

Adverse effects

Rabbits can cause a number of adverse effects on environmental values and cultural and economic wellbeing, particularly in the more rabbit-prone areas. At high numbers the control costs can be prohibitively expensive. Their impact reduces available grazing for domestic stock and subsequently decreases the financial returns to landowners and their ability to fund control.

Rabbits compete directly with stock for grazing and reduce the amount of palatable pasture. They can also damage young plantation trees, horticultural crops and residential gardens. They are especially damaging in regenerating coastal environments. Rabbits eat a wide range of food, including native grasses and seedlings. In combination with grazing stock, rabbits can increase the risk of soil erosion, and contribute to increases in unpalatable weed species. Rabbit grazing also impacts on amenity plantings, commercial gardens and forestry seedlings. Grazing and burrowing can lead to the loss of vegetation cover and soil erosion in native flora and fauna habitats.

Objective

Over the duration of the Plan, sustainably control rabbits to ensure that population levels are maintained below level 5 on the Modified McLean Rabbit Infestation Scale 2012, in order to minimise adverse effects on environmental, cultural and production values in the Wellington Region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
------------------	--------------------	--------------------------------	--------------------------	-----------------

Scale	Rabbit infestation
1	No sign found. No rabbits seen.
2	Very infrequent sign present. Unlikely to see rabbits.
3	Pellet heaps spaced 10m or more apart on average. Odd rabbits seen; sign and some pellet heaps showing up.
4	Pellet heaps spaced 5-10m apart on average. Pockets of rabbits; sign and fresh burrows very noticeable.
5	Pellet heaps spaced 5m or less apart on average. Infestation spreading out from heavy pockets.
6	Sign very frequent, with pellet heaps often less than 5m apart over the whole area. Rabbits may be seen over the whole area.
7	Sign very frequent, with two or three pellet heaps often less than 5m apart over the whole area. Rabbits may be seen in large numbers over the whole area.
8	Sign very frequent, with three or more pellet heaps often less than 5m apart over the whole area. Rabbits likely to be seen in large numbers over the whole area.

Table 7: Modified McLean Rabbit Infestation Scale 2012 to assess rabbit population levels

Principal measures to achieve objective

Requirement to act

- Land occupiers will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Will annually determine and report rabbit densities using the Modified McLean Rabbit Infestation Scale 2012 for properties in high to extreme rabbit-prone areas
- Will annually survey land in high to extreme rabbit-prone areas to determine rabbit population trends
- Will monitor the effectiveness and rate of spread of biological control agents
- Staff will undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions

Service delivery

Greater Wellington will:

- Provide a referral or cost recovery service to land owners/occupiers who request rabbit control
- Release biological control agents for the control of feral rabbits when appropriate
- Support research initiatives including biological control

Advocacy and education

Greater Wellington will:

- Make occupiers aware of their responsibilities for rabbit control
- Provide education and advice to land owners/occupiers and the public about feral rabbits, the threat they pose to the Wellington Region, and how to control them
- Help land owners/occupiers and the public to gain the knowledge and skills to help reduce the impacts and spread of feral rabbits

Rule

- An occupier within the Wellington Region shall ensure feral rabbits on land they occupy are always below level 5 of the Modified McLean Rabbit Infestation Scale 2012.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

Explanation of rule

Rule 1 requires occupiers to control feral rabbits on their land to prevent numbers from reaching high to extreme infestations.

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

6.4.6 Wasps – common wasp (*Vespula vulgaris*), German wasp (*V. germanica*), Australian paper wasp (*Polistes humilis*) and Asian paper wasp (*P. chinensis*)



Description

Both common and German wasps live in large colonies, about the size of soccer balls. The nests can become larger if the colonies survive winter. They have distinctive yellow- and black-striped bodies. The common wasp nest is yellowish to reddish brown, while the German wasp nest is grey. Both species can sting repeatedly. Common and German wasps can be found in all areas from urban backyards to parks and along rivers and streams, and are commonly found in native bush.

Paper wasps are distinguished by their body shape, which is slender and 13-25mm long. They have reddish-brown to black bodies, with yellow rings and reddish areas on the abdomen. Their wings are reddish or amber brown and they have long legs that hang down during flight. Asian paper wasps frequently construct their nests on houses and other buildings and also nest in trees and bushes.

Australian paper wasps are slender with long, thin wings. They are 10-15mm long and reddish brown. This species nests above ground in buildings and trees. The Australian paper wasp has been in New Zealand for more than a century. The Asian paper wasp is larger than the Australian paper wasp. It arrived in New Zealand in the late 1970s and by 1995 was widespread in the upper North Island. It had also spread as far south as Nelson. Large populations of Asian paper wasps occur in lowland open habitats such as shrub lands, swamps and salt marshes.

Adverse effects

Wasps are a serious threat to homes, schools and public recreational areas such as parks, forests and beaches. Wasps can pose life-threatening risks to those who are allergic to their stings, with those in viticulture, agriculture and forestry particularly at risk.

Wasps pose a significant risk to the apiculture industry in New Zealand as they raid beehives and reduce food supply. They also predate on native insects and honeydew, which are important food sources for many native species. They have even been sighted killing newly hatched birds.

Paper wasps can occur at high densities of more than 200 nests per hectare. The potential impact of high densities of wasps on native ecosystems is a concern, although the full extent of this impact requires further research. Asian paper wasps prey mainly on invertebrates, especially caterpillars. They also compete with other insects for nectar and honeydew resources.

Objective

Over the duration of the Plan, sustainably control wasps (common, German and paper) to protect environmental and public health values in the Wellington Region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
Principal measures to achieve objective				
Requirement to act		Rule		
<ul style="list-style-type: none">Land occupiers will comply with the rules specified in this section of the Plan.		1 An occupier within the Wellington Region shall, within 10 working days of receipt of a written direction from an authorised person, destroy all wasp nests on the property they occupy.		
Inspection and monitoring		Explanation of rule		
Greater Wellington will:		A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.		
<ul style="list-style-type: none">Report the times and general locations of common, German and paper wasp complaints in the Wellington Region		Explanation of rule		
Service delivery		Rule 1 requires land occupiers to destroy all wasp nests on their property following receipt of a written direction. This will ensure the removal of the health and safety hazard associated with wasp nests.		
Greater Wellington will:		Advice note		
<ul style="list-style-type: none">Provide a referral service to land owners/occupiers who require wasp controlRelease biological control agents for the control of wasps where appropriateSupport research initiatives into the human health impacts of wasps in the Wellington Region		Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.		
Advocacy and education				
Greater Wellington will:				
<ul style="list-style-type: none">Provide advice and education to occupiers wanting to undertake wasp controlProvide information and publicity to enhance public awareness of the threat that wasps pose to the Wellington Region				

6.5 Pests to be managed under site-led programmes

A site-led programme is the coordinated and integrated control of pests, unwanted organisms and/or other harmful organisms in a defined area, which aims to protect and restore specific ecological or biodiversity values that are threatened or compromised by pests, unwanted organisms and/or other harmful organisms. Site-led programmes focus on the ecological or biodiversity values of sites rather than simply the control of pests. The values of sites can be put at risk by factors other than the presence of pests, unwanted organisms and/or other harmful organisms, and these need to be taken into consideration before embarking on a site-led pest programme.

A range of outcomes can be achieved through site-led management, such as:

- Protected and enhanced ecosystem integrity
- Optimised ecological health where the benefits outweigh the costs
- Positive responses to/or support of community concerns
- Improvements in breeding success and native fauna density
- Reduced soil erosion, and subsequent soil conservation
- Improvements in water quality

Greater Wellington will monitor for the achievement of the outcomes being sought, rather than focus on the outputs associated with traditional pest management. Pests to be included in site-led programmes are listed in Table 8.

Common name	Scientific name
Plants in the Hutt City Council TA programme	
Banana passionfruit	<i>Passiflora mixta</i> , <i>P. mollissima</i> , <i>P. tripartita</i>
Cathedral bells	<i>Cobaea scandens</i>
Old man's beard	<i>Clematis vitalba</i>
Animals	
European hedgehog	<i>Erinaceus europaeus</i>
Feral deer (fallow, red and sika)	<i>Dama dama</i> , <i>Cervus elaphus</i> , <i>C. nippon</i>
Feral goat	<i>Capra hircus</i>
Magpie	<i>Gymnorhina spp.</i>
Mustelids (ferret, stoat, weasel)	<i>Mustela furo</i> , <i>M. erminea</i> , <i>M. nivalis</i>
Possum	<i>Trichosurus vulpecula</i>
Pest cat	<i>Felis catus</i>
Rats (Norway and ship)	<i>Rattus norvegicus</i> , <i>R. rattus</i>

Table 8: Pests to be managed in site-led programmes

Statutory obligation

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Hutt City Council territorial authority programme

Hutt City Council has been controlling old man's beard under a formal programme since 1989, with the control of banana passionfruit and cathedral bells commencing shortly afterwards. Hutt City Council has put considerable resources into controlling these three species within the Hutt City Council TA boundary in the past decade, with great success.

By continuing to undertake a site-led programme, adverse impacts caused by old man's beard, banana passionfruit and cathedral bells will be reduced within the Hutt City Council TA boundary.

6.5.1 Banana passionfruit (*Passiflora mixta*, *P. mollissima*, *P. tripartita*)



Description

Banana passionfruit is a vigorous, evergreen vine that can climb up to 20m high and cover more than 100m². It has three-fingered leaves, with the middle being the longest, and tendrils that enable it to cling to trees and supporting structures. Its leaves are serrated and the undersides are covered in down.

Its pink, star-shaped flowers are followed by hanging, thick-skinned, oval fruit, with sweet, edible, orange pulp and dark red seeds.

Adverse effects

Banana passionfruit has a rapid rate of spread and the ability to cause irreversible damage to native ecosystems. It is a very aggressive species, dispersing via seed and stem fragments. It invades disturbed areas, smothers trees and reduces biodiversity.

6.5.2 Cathedral bells (*Cobaea scandens*)



Description

Cathedral bells is a fast-growing perennial climber that grows up to 10m high. Its corkscrew tendrils cling to supporting plants and structures. The oval leaves are arranged in opposite pairs and are light green with prominent purplish veins. Large, white or purple cup-and-saucer-shaped flowers are produced in the summer months, followed by green, oval seed pods 6-10cm long that split on ripening to release winged seeds.



Adverse effects

Cathedral bells have a rapid spread rate and the ability to cause irreversible damage to native ecosystems.

6.5.3 Old man's beard (*Clematis vitalba*)



Description

Old man's beard is a deciduous, woody, climbing vine that can grow up to 20m high. Younger vines have six longitudinal ribs, and mature vines have stringy, pale brown bark that rubs off easily. Leaves are arranged in opposite pairs on stems made of five widely spaced leaflets that fall in autumn. The creamy-white 2cm flowers are fragrant and are produced from December to May, followed by grey, hairy seeds with distinctive white plumes.



Adverse effects

Old man's beard smothers and kills all plants to the highest canopy, and prevents the establishment of native plant seedlings. It moves readily into established forest over the canopy and by layering.

Objective

Over the duration of the Plan, control and reduce the geographic distribution and/or extent of banana passionfruit, cathedral bells and old man's beard within the Hutt City Council TA boundary to protect the environmental values of this area.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objectives

Requirement to act

- Land occupiers will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Hutt City Council:

- Staff and/or its contractors may conduct searches in areas that are vulnerable to infestation by banana passionfruit, cathedral bells and old man's beard

Greater Wellington staff:

- May undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions
- Will inspect plant outlets and markets within the Wellington Region for the sale and/or propagation of banana passionfruit, cathedral bells and old man's beard

Service delivery

- Hutt City Council shall destroy by way of service delivery all banana passionfruit, cathedral bells and old man's beard within the Hutt City Council TA boundary.
- Hutt City Council will take responsibility for undertaking the control programme for banana passionfruit, cathedral bells and old man's beard within the Hutt City Council TA boundary.

Advocacy and education

Hutt City Council staff will:

- Provide advice and information to land occupiers and the general public to promote awareness and encourage the public to report any infestations
- Provide education, advice and awareness-raising and publicity activities to other interested parties to prevent the spread of banana passionfruit, cathedral bells and old man's beard

Plan rules for land occupiers within the Hutt City TA boundary

- Any person within the Hutt City Council territorial authority boundaries shall report to Hutt City Council the presence or suspected presence of banana passionfruit, cathedral bells and old man's beard on land they occupy.
- An occupier shall, on receipt of a written direction from an authorised person, destroy* all banana passionfruit, cathedral bells and old man's beard present on the land they occupy.

**For the purpose of this rule, destroy means the permanent preclusion of the plant's ability to set viable seed.*

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

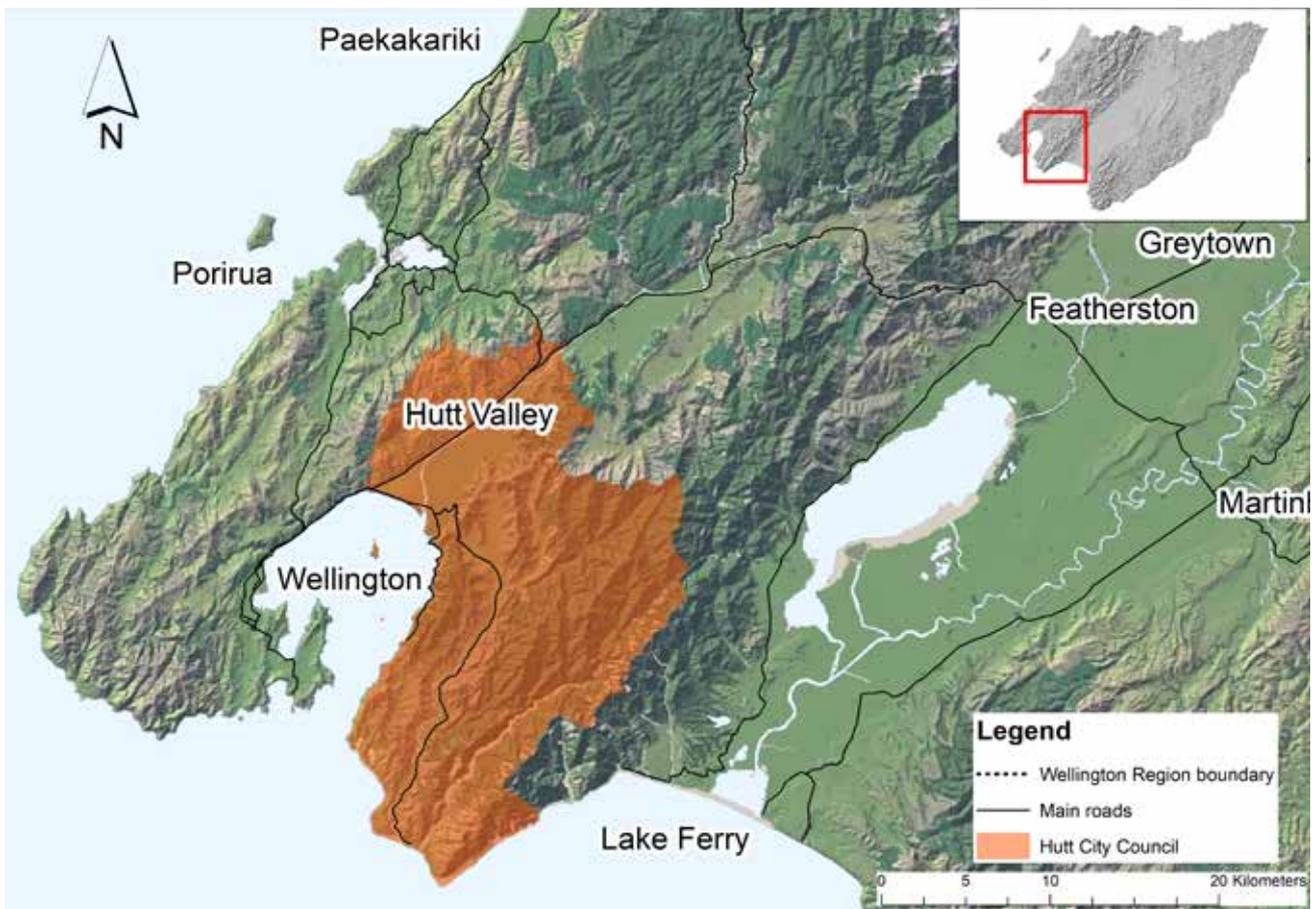
Explanation of rules

Rule 1 is to assist in preventing the further spread of, and to control these plants within the Hutt City Council territorial authority boundaries.

Rule 2 makes provision for Greater Wellington to assist Hutt City Council in situations where occupiers decline to allow Hutt City Council to undertake control of these species and they then fail to carry out the control themselves.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.



Map 6: Map of the Hutt City Council programme area

Site-led programmes for animals

6.5.4 European hedgehog (*Erinaceus europaeus occidentalis*)



Description

Hedgehogs are small, brown-to-grey, insectivorous mammals with spiny coats, and have the ability to roll into tight prickly balls for defence.

Objective

Over the duration of the Plan, sustainably control hedgehogs in KNE areas and TA reserves (see Maps 2 and 7) to reduce their impacts on the cultural and economic values, and biodiversity in those areas.

Adverse effects

Hedgehogs are voracious nocturnal predators, consuming invertebrates, ground-nesting birds' eggs and small reptiles. They also vector a wide variety of human, bird, pet and agricultural diseases, including bovine Tb.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may undertake inspections, monitoring and surveillance within KNEs to determine the presence of hedgehogs

Service delivery

Greater Wellington will:

- Undertake direct control of hedgehogs by service delivery within KNEs as part of the integrated management of those areas, to levels that protect the biodiversity values of the areas
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA

Advocacy and education

Greater Wellington will:

- Provide information and advice on pest animal identification, impacts and control

- Provide advice to community groups undertaking pest animal control, with priority given to activity in or around KNEs and in defensible or strategic geographic locations such as peninsulas, islands and corridors

Rule

- No person shall possess and/or release any hedgehog within a KNE identified on Map 2.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

Explanation of rule

Rule 1 is to assist in preventing the further spread of, and to control hedgehogs in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

6.5.5 Feral deer – fallow, red and sika (*Dama dama*, *Cervus elaphus*, *C. nippon*)



Description

Fallow are a small deer, with a coat that is either black, brown with spots, or, occasionally, white. Adults weigh 30-85kg.

Red deer are a medium-sized deer with a reddish brown coat and a creamy coloured rump patch. Adults weigh 80-200kg. They are the largest and most common deer in the region.

Sika are a small deer, chestnut coloured in summer with spots, and dark coloured in the winter. When alarmed, sika display a white rump patch, and make a piercing whistle. Adults weigh 45-85kg.

Red deer were liberated in the Wairarapa in the 1800s and were well established by the early 1900s. Fallow and sika were illegally released in the Wellington Region in more recent times for recreational hunting. Red deer still remains the most common species in the region. Feral deer frequent native bush, regenerated scrubland, exotic forestry and rough grassland in the region.

Any deer which is not held behind effective fences or otherwise constrained, and identified in accordance with a recognised identification system, is considered to be feral by Greater Wellington.

Adverse effects

Feral deer can change forest structure and the composition of the understorey of forests by heavy and selective browsing on trees and shrubs. Palatable plant species such as pate, broadleaf, five-finger, lancewood, and hen and chicken fern can be all but removed from the ground tier. Browsing reduces vegetation cover and density and causes the loss of plant species' richness, and alters community composition in favour of unpalatable species. Also, feral deer can cause severe damage to young trees in plantation forests by browsing young trees and stripping bark from older trees.

Objective

Over the duration of the Plan, sustainably control feral deer in KNE areas (see Map 2) and on TA reserves (Map 7) within the Wellington Region to reduce their impacts on the cultural and economic values, and biodiversity of those areas.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Service delivery

Greater Wellington will:

- Undertake direct control by service delivery of feral deer in KNEs
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA
- Provide a referral or cost recovery service to land owners/occupiers who require deer control

Advocacy and education

Greater Wellington will:

- Provide education and advice to land owners/occupiers and the public about feral deer, the threat they pose to the region, and how to control them.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale* and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Releasing deer is an offence under the Wild Animal Control Act 1977.

6.5.6 Feral goat (*Capra hircus*)



Description

Feral goats originate from domestic goats and come in a variety of colours and sizes. Both sexes generally have horns and are short-haired and bearded. Males stand about 70-150cm and can weigh 50-70kg. Adult females are significantly smaller.

Any goat that is not held behind effective fences or otherwise constrained, or identified in accordance with a recognised identification system, is considered to be feral by Greater Wellington.



Adverse effects

Goats destroy the understorey of forests, and when combined with possum damage to the upper canopy, severe deterioration of native forest occurs. Browsing reduces vegetation cover and density and causes the loss of plant species' richness and altered community composition in favour of unpalatable species. Goats also damage vegetation planted on land retired for soil conservation purposes, and newly planted and young trees in exotic forests.

Objective

Over the duration of the Plan, sustainably control feral goats in KNE areas (see Map 2) and on TA reserves (Map 7) within the Wellington Region to reduce their impacts on the cultural and economic values, and biodiversity of those areas.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Service delivery

Greater Wellington will:

- Undertake direct control by service delivery of feral goats in KNEs
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA
- Provide a referral or cost recovery service to land owners/occupiers who require goat control

Advocacy and education

Greater Wellington will:

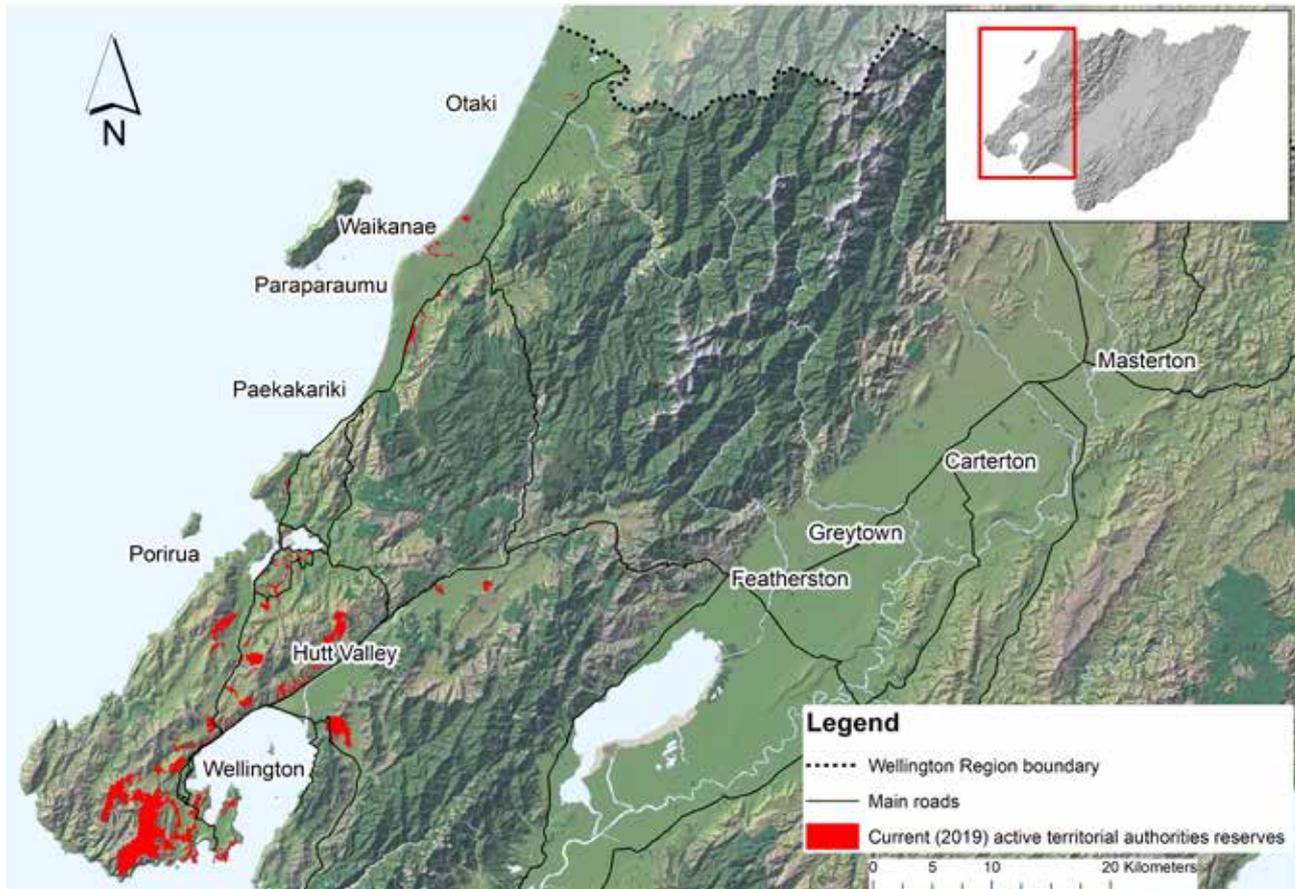
- Provide education and advice to land owners/occupiers and the public about feral goats, the threat they pose to the region, and how to control them
- Make the public aware of their responsibilities when housing domestic goats

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale* and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

**Sale to slaughter of feral goats is exempt from this rule.*

Releasing goats is an offence under the Wild Animal Control Act 1977.



Map 7: Territorial authorities reserves under active pest management

6.5.7 Magpie (*Gymnorhina tibicen*, *G. tibicen hypoleuca*)



Description

Magpies are large, black-and-white birds with a distinctive warbling call. The black-backed magpie, *Gymnorhina tibicen*, and the more predominant white-backed magpie, *Gymnorhina tibicen hypoleuca*, commonly interbreed, producing birds with intermediate markings. Both sub-species of the Australian magpie were introduced to New Zealand with the aim of controlling invertebrate soil pests. Magpies were widely distributed throughout the Wellington Region by the 1970s. Their preferred habitat is open grassland and cultivated paddocks with tall trees nearby for shelter. They are frequently found in paddocks, city parks and playing fields, on the edges of native and exotic forest and occasionally on mountains up to 1,700m altitude.

Adverse effects

Magpies are extremely territorial birds and show aggression to anything that may pose a threat to their territory. Especially during breeding season, magpies can become very aggressive and attempt to drive off humans and animals by swooping and dive-bombing.

Magpies are also known to harass, attack and kill a variety of native and exotic birds.

Objective

Over the duration of the Plan, sustainably control magpies to protect the public from aggressive magpies swooping and attacking people, and to reduce the effects of magpies on the natural environment in the Wellington Region.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Inspection and monitoring

Greater Wellington will:

- Report the time of magpie complaints, the location and number of birds disposed of, and the time of disposal

Service delivery

Greater Wellington will:

- Undertake direct control of magpies by service delivery within 10 working days where there is known to be a threat of injury to members of the public, or complaints are made to that effect
- Respond to land owners/occupiers wanting to undertake magpie control within fifteen (15) working days of receiving a request for information and/or assistance

Advocacy and education

Greater Wellington will:

- Provide advice, education and assistance to occupiers wanting to undertake magpie control
- Support appropriate research initiatives into magpie impacts

Advice note

Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

6.5.8 Mustelids – ferret (*Mustela furo*), stoat (*M. erminea*) and weasel (*M. nivalis*)



Description

Ferrets, stoats and weasels are part of the mustelid family, which is a group of small to medium-sized carnivores. Mustelids have large home ranges and live from sea level to alpine, in forests and in rural and urban areas. They are active day and night and are opportunistic predators.

Ferrets are the largest mustelid in New Zealand. Male ferrets grow up to 44cm and females up to 37cm in length. The undercoat is creamy yellow with long, black guard hairs that give the ferret a dark appearance. A characteristic black face mask occurs across the eyes and above the nose.

Stoats have long, thin bodies with smooth, pointed heads. Ears are short and rounded. They are smaller than ferrets. Males grow up to 30cm and females up to 25cm in length. Their fur is reddish-brown above with a creamy underbelly. Stoats have relatively long tails with distinctive bushy, black tips.

Weasels are the smallest and least common of the three mustelids, growing to 20-25cm long. Their fur is brown with white underparts, often broken by brown spots, and their tails are short, brown and tapering.

Adverse effects

Although habitat loss and modification remain a threat to native biodiversity, an equally serious threat is from invasive introduced species. Introduced predators such as ferrets, stoats and weasels pose a significant threat to our remaining natural ecosystems and habitats and threatened native species, and can have considerable negative impacts on primary production. Ferrets, stoats and weasels are distributed throughout the Wellington Region.

Mustelids feed mainly on small mammals: rabbits, hares, rodents, hedgehogs, possums and rats. They also eat a large variety of birds, reptiles (geckos and skinks), weta, beetles, fish, frogs and other invertebrates. They will attack prey that is much larger than themselves, and adverse effects on New Zealand's native fauna have been confirmed for a number of bird species (including kiwi, penguins, wading birds and passerines), lizards and native invertebrates. Stoats in particular are considered the primary factor contributing to the decline of mainland kiwi and have been linked to the disappearance of a number of other threatened indigenous bird species, such as the kōkako.

The animals' killing behaviour is independent of hunger, and mustelids will, if the opportunity arises, kill any suitable prey and cache the surplus for future use.

Mustelids have an unknown but suspected participation in the bovine Tb cycle, and they carry parasites and toxoplasmosis, which causes abortions in sheep and illness in humans.

Objective

Over the duration of the Plan:

- (i) Sustainably control mustelids in KNE areas, RPCP sites and TA reserves (see Maps 2 and 7) to protect the environmental, cultural and economic values at those sites.
- (ii) Eradicate mustelids on land contained within the boundaries of Predator Free Wellington initiatives (see Map 3)

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Will undertake inspections, monitoring and surveillance in KNE areas and on land contained within the boundaries of Predator Free Wellington initiatives, to determine the presence of new infestations and status in pre- and post-eradication sites (see Appendix 3, Map 1)
- Staff will undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions

Service delivery

Greater Wellington will:

- Undertake direct control of mustelids in KNEs
- Support and/or undertake control in conjunction with Predator Free Wellington project partners
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA
- Assist in the release of biocontrol agents for mustelids where appropriate

Advocacy and education

Greater Wellington will:

- Provide advice and training to anyone undertaking mustelid control, with priority given to activity in or around KNEs and in defensible or strategic geographic locations such as peninsulas, islands and corridors

Enforcement

Greater Wellington will:

- Enforce restrictions on the sale, breeding, distribution and exhibition of mustelids

Rule

- 1 No person shall possess and/or release any mustelid within the Wellington Region.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

Explanation of rule

Rule 1 is to assist in preventing the further spread of mustelids in the Wellington Region.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

A research permit can be obtained to hold a live mustelid for research purposes only.

6.5.9 Pest cat (*Felis catus*)



© Patrick Garvey Manaaki Whenua



© Reg McKenna

Description

All pest cats* originate from domestic cats. They are usually short-haired and slightly built, with large heads and sharp features. Coat colours vary from pure black to orange tabby and some resemble the striped dark and pale grey of the true European wild cat. They commonly revert to black, tabby or tortoiseshell, with varying extents of white starting from the belly and breast. Adult male cats are generally larger than the females and can weigh up to 5kg. Diet is wide-ranging and includes small mammals, fish, birds, reptiles (lizards) and invertebrates. Pest cats can produce two or three litters per year with an average of four young in each.

**Pest cat means any cat within the Wellington Region that is:*

- (i) Not microchipped in an area where microchipping is compulsory, and free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans, or
- (ii) Not microchipped, or registered on the New Zealand Companion Animal Register, and is free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans

Adverse effects

New Zealand's unique native wildlife is particularly vulnerable to predation by cats. Pest cats kill young and adult birds and occasionally take eggs and prey on native lizards, fish, frogs and large invertebrates. Cats are highly efficient predators, and have been known to cause local extinctions of seabird species on islands in New Zealand and around the world. Both sea and land birds are at risk, particularly those that nest or feed on or near to the ground.

Pest cats are implicated in a small way in the spread of bovine Tb, with the potential to spread the infection to cattle. They also carry parasites and toxoplasmosis, which causes abortions in sheep and illness in humans. Pest cats can be aggressive towards domestic pet cats. Through fighting they cause severe injuries, sometimes resulting in the pet cats having to be put down.

Objective

Over the duration of the Plan, sustainably control pest cats in KNE areas and on TA reserves (see Maps 2 and 7) within the Wellington Region to minimise adverse effects on economic wellbeing, the environment, human health, the enjoyment of the natural environment and the relationship between Māori, their culture and their traditions and their ancestral lands, waters, sites, wāhi tapu and taonga.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Requirement to act

- Every person will comply with the rules specified in this section of the Plan.

Inspection and monitoring

Greater Wellington:

- Staff and/or its contractors may undertake inspections, monitoring and surveillance within KNEs and actively managed TA reserves, to determine the presence of pest cats and the status of existing or historical sites of cat colonies

Service delivery

Greater Wellington:

- Will undertake direct control of pest cats within KNEs as part of the integrated management of those areas, to levels that protect the biodiversity values of the areas (see Map 2)
- Staff and/or its contractors will provide a cost recovery service in actively managed TA reserves in agreement with the associated TA (Map 7)

Advocacy and education

- Greater Wellington will provide information and advice on the impacts of pest cats and best-practice control methods, particularly to communities near KNEs and TA reserves.

Enforcement

- Greater Wellington will enforce prohibitions on cat colonies and abandonment.

**Pest cat means any cat within the Wellington Region that is:*

- (i) Not microchipped in an area where microchipping is compulsory, and free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans, or
- (ii) Not microchipped, or registered on the New Zealand Companion Animal Register, and is free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans

Rule

- 1 No person shall feed or provide shelter to pest cats on private or public land within the Wellington Region, without the permission of the occupier.

A breach of this rule creates an offence under section 154N(19) of the Biosecurity Act.

Explanation of rule

Rule 1 prevents members of the public from encouraging or supporting pest cat colonies on private and public land, to assist with controlling pest and unwanted cat populations.

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Under section 14(2) of the Animal Welfare Act 1999: "A person commits an offence who, being the owner of, or person in charge of, an animal, without reasonable excuse, deserts the animal in circumstances in which no provision is made to meet its physical, health, and behavioural needs".

6.5.10 Possum (*Trichosurus vulpecula*)



Description

The Australian brushtail possum is a nocturnal marsupial introduced and liberated in New Zealand by private individuals and acclimatisation societies between 1837 and 1898 to establish a fur trade. Possums were accorded various levels of protection until 1947. When it became clear that the environmental damage inflicted by them far outweighed any profit made from their skins, this protection was lifted.

Possums in New Zealand occur as two colour types: “blacks” and “greys”. Adult male blacks vary in colour from rich red-brown to brown, while the females have darker or black-brown fur. Adult male greys are often strongly rufous in the neck and shoulders, and the greys often have a distinct silver tinge in the fur. Possums make a loud rasping call at night.

Size and weight are dependent on habitat. In good conditions adult possums can weigh 3-5kg. Their lifespan is about nine years. Possums reach reproductive maturity at approximately two years of age. Usually females rear three young every two years.

Possums can be found throughout the Wellington Region, generally in bush/pasture margins as these provide a plentiful supply of food and suitable habitat.

Adverse effects

Because of their feeding habits, possums pose a serious threat to the biodiversity of the Wellington Region. Possums also pose a threat to agriculture by grazing pasture and crops and serving as a vector in the spread of diseases affecting domestic animals and people, including bovine tuberculosis (Tb). Possums' wide-ranging diet consists of leaves, fruit, seeds, buds and bark, but they will also eat birds' eggs, chicks and insects.

Their browsing damages and destroys forests and affects pasture, and vegetable and horticultural crops. They compete with native birds by eating berries and flowers, and predate on their young and eggs.

Objective

Over the duration of the Plan:

- | | |
|---|--|
| <ul style="list-style-type: none"> (i) Eradicate possums on land contained within the boundaries of the Predator Free Wellington initiative (see Map 3) (ii) Control possums in KNEs and TA reserves to reduce the impacts of possums on the biodiversity and cultural and economic values of the Wellington Region | <ul style="list-style-type: none"> (iii) Control possums on land contained within the RPCP to ensure that population levels are maintained at the determined RTC rate (or equivalent) <p>to protect the environmental, cultural, economic and human health values at those sites.</p> |
|---|--|

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Inspection and monitoring

Greater Wellington:

- Will undertake inspections, monitoring and surveillance on land contained within the boundaries of the Predator Free Wellington initiative, to determine the presence of new infestations and status in pre- and post-eradication sites (see Map 3)
- Staff will undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions

Service delivery

Greater Wellington will:

- Support and/or undertake control in conjunction with Predator Free Wellington project partners
- Undertake direct control by service delivery in KNEs and other sites of ecological significance in agreement with the land owners/occupiers
- Undertake possum control programmes, in collaboration with landowners as part of the Regional Predator Control Programme
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA
- Provide a referral or cost recovery service to land owners/occupiers who require possum control outside KNEs or the RPCP
- Support research initiatives, including biological control

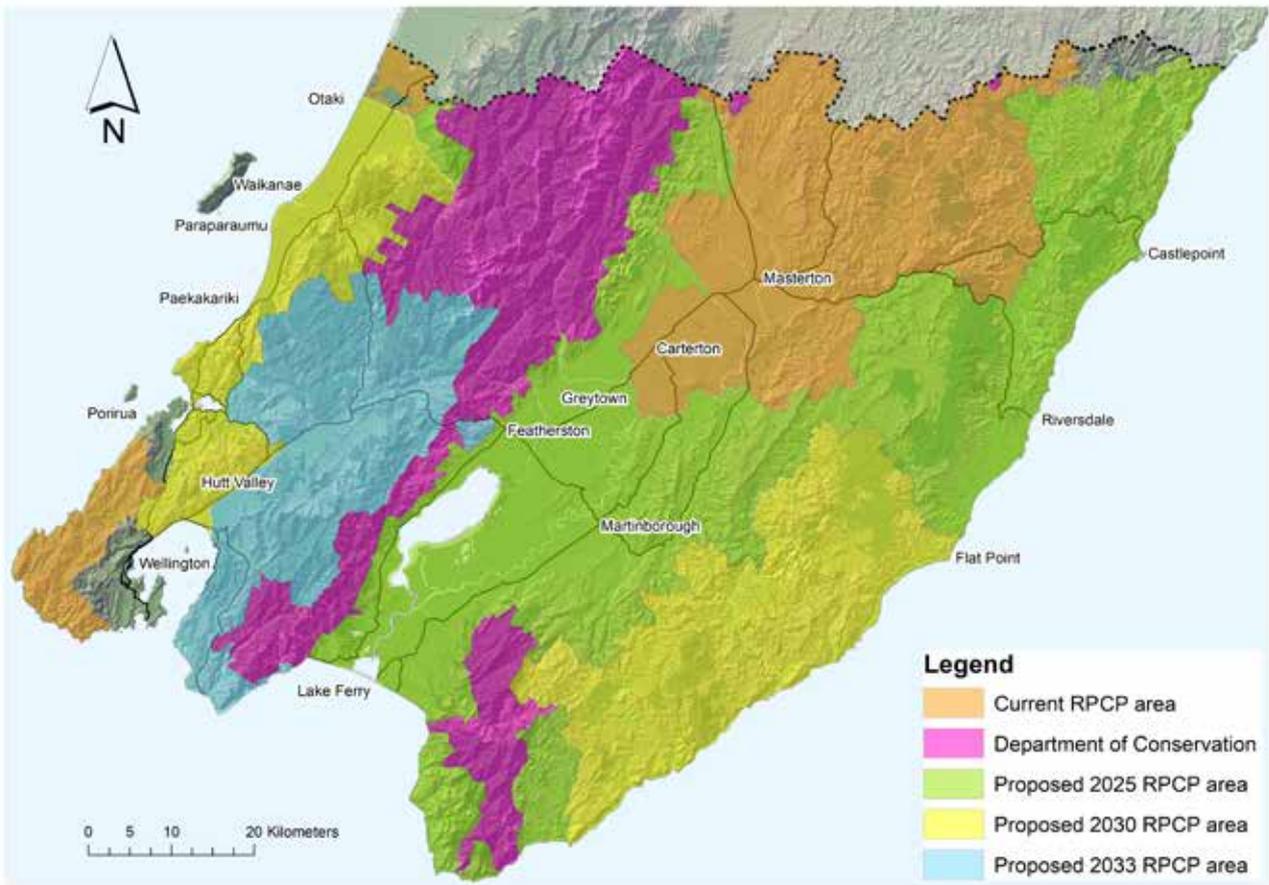
Advocacy and education

Greater Wellington will:

- Provide information and advice on pest animal identification, impacts and control
- Provide advice and support to community groups undertaking pest animal control

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.



Map 8: Map of the Regional Predator Control Programme 2019 - 2039

6.5.11 Rat – Norway rat (*Rattus norvegicus*) and ship rat (*R. rattus*)



Description

Rats are small black, grey or brown mammals with naked tails. Rats occupy a wide range of terrestrial habitats throughout Aotearoa/New Zealand.

Norway rats (*R. norvegicus*) are the larger of the two European rats found in New Zealand. They have short bodies and heavy tails, which are slightly shorter than the head and body length, and have relatively small ears, which usually do not cover the eyes when pulled forward. Norway rats have brown fur on their backs and pale grey fur on their bellies. Adults normally weigh 150-300g, but can weigh up to 500g, and are up to 390mm long. They are competent swimmers, enabling them to colonise offshore islands.

Ship rats (*R. rattus*) are smaller than Norway rats, with larger, thicker tails that are longer than their bodies. They have pointed muzzles and large ears and eyes. The body is sleek with a scaly, sparsely haired tail. Ship rats are slender with large, hairless ears, are grey-brown on the back and have a similarly coloured or creamish-white belly, or are black all over. The uniformly coloured tail is always longer than the head and body length combined. Adults usually weigh 120-160g but can exceed 200g.

Breeding commences as early as three or four months of age. Females can produce 15-20 young per year. Mortality can be high. They inhabit a wide range of urban, rural and forest habitats. Ship rats are more common in forest areas.



Adverse effects

Rats are generalist omnivores and opportunistic feeders, eating 10 percent of their body weight per day. This makes them a competitor for food with many species and predators of others. They eat a variety of native flora and fauna, in particular native birds (eggs and fledglings), invertebrates, reptiles, snails, amphibians and lizards.

Excessive consumption of seeds by rats can greatly reduce native seedling recruitment and ultimately modify plant communities in invaded ecosystems. They compete with native birds for nests and burrows, and have been implicated in the decline of a number of threatened birds. Rats are particularly damaging to cereal production, stored products and the food services industry, and are a disease vector to humans.

Objective

Over the duration of the Plan:

- (i) Sustainably control rats in KNE areas and TA reserves (Maps 2 and 7)
- (ii) Eradicate rats on land contained within the boundaries of Predator Free Wellington initiatives (see Map 3)

to protect the environmental, cultural, economic and human health values at those sites.

Exclusion	Eradication	Progressive containment	Sustained control	Site-led
-----------	-------------	-------------------------	-------------------	----------

Principal measures to achieve objective

Inspection and monitoring

Greater Wellington:

- Will undertake inspections, monitoring and surveillance in KNE areas, and on land contained within the boundaries of the Predator Free Wellington initiative, to determine the presence of new infestations and status in pre- and post-eradication sites (see Maps 2 and 3)
- Staff will undertake compliance activities when required, such as rule enforcement, action on default, prosecution, and processing of exemptions

Service delivery

Greater Wellington will:

- Undertake direct control of rats in KNEs
- Support and/or undertake control in conjunction with Predator Free Wellington project partners
- Provide a cost recovery service in actively managed TA reserves in agreement with the associated TA
- Assist in the release of biocontrol agents for rats where appropriate

Advocacy and education

Greater Wellington will:

- Provide information and advice on pest animal identification, impacts and control
- Provide advice and support to community groups undertaking pest animal control, with priority given to activity in or around KNEs and in defendable or strategic geographic locations such as peninsulas, islands and corridors

Advice note

Sections 52 and 53 of the Biosecurity Act, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

7 NGA HUA O TE WHAKATINANATANGA O TE WAHANGA

ACTUAL OR POTENTIAL EFFECTS OF IMPLEMENTATION

Given its longstanding experience in pest management, Greater Wellington is satisfied that the overall effects of the Plan will be beneficial to the regional community. While Greater Wellington is confident that a plan is an effective way of managing pests, there are some aspects of the implementation of the Plan that may have real and perceived adverse effects.

7.1 Effects on Māori

It is anticipated that pest animal and plant management under the plan will have a positive effect on the relationship of Māori with their culture and traditions and their ancestral lands, waters, sites, wāhi tapu and taonga, by contributing to the protection of taonga and mauri associated with indigenous biodiversity, landscapes and waterways.

Positive results stemming from the plan can include improved quality of traditional food-gathering sites (eg, wetlands and estuaries), and improved availability of native plant resources for food, fibre and the purposes of

rongoā.

It is acknowledged that feral animals such as deer, pigs and goats are valued as replacements for traditional hunting resources. Feral deer and feral pigs will be actively controlled in KNE reserves and TA reserves in agreement with the associated TA. Feral goats will primarily be controlled in KNEs and in areas in the region deemed to have high ecological values. Therefore the effect of the Plan on the regional availability of these hunting resources (outside of KNEs and TA reserves) will be minimal.

7.2 Effects on the environment

This Plan will enhance and protect the ecological environment, including natural ecosystems and processes, soil health and water quality, by removing, reducing or managing the pest species that threaten it. The use of control tools such as toxins and traps can negatively affect indigenous wildlife. Greater Wellington actively participates in current research and training that aim to minimise the non-target effects of pest control, and readily adopts best practice methods for poisoning and trapping operations.

Enjoyment of the cultural environment will also be enhanced where pest management overlaps with amenity and recreational values. The economic environment will experience some benefit as a result of suppressing or eradicating pests that have impacts on primary productivity. In addition, the tourism industry (domestic and international) is expected to gain from this Plan through enhancement of the natural areas used by visitors.

7.3 Effects on overseas marketing of New Zealand products

The control of pests in areas of high natural value (including KNEs) should increase the recreational and aesthetic values associated with these areas, which may have positive impacts on international tourism.

The provisions of this Plan do not replace other legislation or regulations relating to the use of toxins and their impacts on Māori culture and traditions, and public health and safety. Greater Wellington shall monitor and report on any impacts arising from the use of toxins through systems and processes established under the relevant legislation. Greater Wellington will also routinely

record and report any adverse effects arising from its direct control operations, including non-target kills.

The use of best-practice methods when applying toxins, and the employment of the mixed method of control, should mitigate any threats to the marketing of New Zealand products. Moreover, by managing pests that affect agriculture, horticulture and forestry, the volume of exports may be improved through increased productivity.

8 TE MĀTAITANGA OROTĀ MONITORING

The Greater Wellington Regional Council will monitor the extent to which the objectives set out in Part Two of this Plan are being achieved.

8.1 Measuring what the objectives are achieving

Table 9: Monitoring of RPMP progress

PEST	ANTICIPATED RESULT	INDICATOR	METHOD OF MONITORING	FREQUENCY OF MONITORING	FREQUENCY OF REPORTING
EXCLUSION					
Alligator weed, Chilean needle grass, nassella tussock, wallabies	No exclusion pests establish in the region.	No exclusion pests found in the region.	Undertake inspections of high-risk areas and respond to reports from public.	Annually, and passive surveillance.	Annually.
ERADICATION					
Moth plant, Senegal tea, spartina, velvetleaf, woolly nightshade	All known sites controlled to zero density by 2028.	Extent and density of subject pest.	Inspection of all known sites. Surveillance of areas vulnerable to invasion. Respond to reports from public.	Annual inspections and passive surveillance until zero density has been achieved.	Annually.
Rooks	All known rookery sites controlled to zero active nests.	Number of active nests in the region.	Inspection of all rookeries. Surveillance of areas where rookeries may establish. Respond to reports from public.	Annually, and passive surveillance.	Annually.
PROGRESSIVE CONTAINMENT					
Purple loosestrife	Reduced distribution of this pest in waterways identified as natural or outstanding.	Extent and density of subject pest in the region.	Inspection of all known sites. Surveillance of areas vulnerable to invasion. Respond to reports from public.	Annually, and passive surveillance.	Annually.
Wilding conifers	Elimination of known infestation. Prevention of establishment in high risk areas.	Extent and density of subject pest in the region.	Inspection of all known sites. Surveillance of areas vulnerable to invasion. Respond to reports from public.	Annually, and passive surveillance.	Annually.

SUSTAINED CONTROL

Blue passionflower, boneseed, climbing spindleberry, eelgrass	Prevent and slow the spread of these pests onto other properties. Minimise impacts on native ecosystems.	Extent and density of subject pest in the region.	Monitoring of all known sites. Surveillance of areas vulnerable to invasion. Respond to reports from public.	Annually, and passive surveillance.	Annually.
Feral rabbit	Rabbits are maintained below level 5 on the Modified McLean Rabbit Infestation Scale 2012.	Regional rabbit monitoring trend data. Complaints/Enquiries received. Monitor the spread of rabbits in the region.	Modified McLean Rabbit Infestation Scale 2012.	Annually.	Annually.
Wasp	Support community in minimising adverse effects of these pests on human health and natural ecosystems.	All human health, wasp-related complaints are responded to within ten (10) working days.	Site inspection upon request or complaint by member of the public. Response database.	Annually.	Annually.

SITE-LED

Banana passionfruit, cathedral bells, old man's beard	Support community in minimising adverse effects of these pests on natural ecosystems within Hutt City Council boundary.	Number of hectares under a site-specific programme.	Undertaken by Hutt City Council.	Undertaken by Hutt City Council.	Undertaken by Hutt City Council.
European hedgehog, feral goat, mustelids, pest cat, rat, feral deer	Support community in minimising adverse effects of these pests on native ecosystems.	Extent and density of subject pest in the region.	Monitoring in KNE sites using tracking tunnels. Aerial surveys and ungulate browse plots. Monitoring using a range of technologies in conjunction with Predator Free Wellington partners.	Annually.	Annually.
Magpie	Support community in minimising adverse effects of these pests on human health and natural ecosystems.	All human health, magpie-related complaints are responded to within ten (10) working days.	Site inspection upon request or complaint from member of the public. Response database.	Annually.	Annually.
Possum	Manage populations to RTC (or equivalent). Support community in minimising adverse effects of these pests on primary production land, native ecosystems and social values.	Keep populations in RPCP control areas to appropriate RTC level (or equivalent)	Number of possums caught per 100 trap nights, expressed as a percentage catch. Wax tag and chew card monitoring may also be used as equivalent means of monitoring. Night counts.	Annually.	Annually.

8.2 Monitoring the management agency's performance

Greater Wellington is proposed to be the management agency. As the management agency responsible for implementing the Plan, Greater Wellington will:

- (a) Prepare an operational plan within three months of the Plan being approved
- (b) Review the operational plan, and amend it if needed

- (c) Report on the operational plan each year, within five months after the end of each financial year
- (d) Implement the Plan in line with the operational plans
- (e) Maintain up-to-date databases of complaints, pest levels and densities, and responses from Greater Wellington and land owners and/or occupiers

8.3 Monitoring Plan effectiveness

Monitoring the effectiveness of the Plan will ensure that it continues to achieve its purpose. It will also check that relevant circumstances have not changed to such an extent that the Plan requires review. A review may be needed if:

- (a) The Biosecurity Act is changed, and a review is needed to ensure that the Plan is not inconsistent with the Act
- (b) Other harmful organisms create, or have the potential to create, problems that can be resolved by including those organisms in the Plan
- (c) Monitoring shows that the problems from pests and other organisms to be controlled (as covered by the Plan) have changed significantly
- (d) Circumstances change so significantly that Greater Wellington believes a review is appropriate

If the Plan does not need to be reviewed under such circumstances, it will be reviewed in line with section 100D of the Act. Such a review may extend, amend or revoke the Plan, or leave it unchanged.

The procedures to review the plan will include officers of Greater Wellington:

- (i) Assessing the efficiency and effectiveness of the principal measures specified for each pest and organism (or pest group and organisms) to be controlled to achieve the objectives of the Plan
- (ii) Assessing the impacts that the pest or organism (covered by the Plan) has on the region, and any other harmful organisms that should be considered for inclusion in the Plan
- (iii) Liaising with key interest groups on the effectiveness of the Plan

WAHANGA TUATORU – NGĀ TIKANGA PART THREE – PROCEDURES



Biosecurity officer entering bait station data into a mobile field app.

9 TE MANA UHIA POWERS CONFERRED

9.1 Powers under Part 6 of the Biosecurity Act

The Principal Officer (Chief Executive) of Greater Wellington may appoint authorised persons to exercise the functions, powers and duties under the Act in relation to an RPMP.

Greater Wellington will use those statutory powers of Part 6 of the Act as shown in Table 10, where necessary, to help implement this Plan.

Table 10: Powers from Part 6 to be used

Administrative provisions	Biosecurity Act reference
The appointment of authorised and accredited persons	Section 103(3) and (7)
Delegation to authorised persons	Section 105
Power to require assistance	Section 106
Power of inspections and duties	Sections 109, 110 and 112
Power to record information	Section 113
General powers	Sections 114 and 114A
Use of dogs and devices	Section 115
Power to intercept risk goods	Section 120
Power to examine organisms	Section 121
Power to apply article or substance to place	Section 121A
Power to give directions	Section 122
Power to act on default	Section 128
Liens	Section 129
Declaration of restricted areas	Section 130
Declaration of controlled areas	Section 131
Options for cost recovery	Section 135
Failure to pay	Section 136

Note: Any non-compliance with the Biosecurity Act or contravention of any rules under the RPMP will be subject to the enforcement provisions under Part 8 of the Biosecurity Act.

9.2 Powers under other sections of the Act

A land owner and/or occupier or any person in breach of a plan rule creates an offence under section 154N(19) of the Act where the rule provides for this. Greater

Wellington can seek prosecution under section 157(5) of the Act for those offences.

9.3 Power to issue exemptions to plan rules

Any land owner and/or occupier or other person may write to Greater Wellington to seek an exemption from any provision of a plan rule set out in Part Two of the Plan. Also, upon application, the Greater Wellington Regional Council will consider issuing an exemption to provide for the keeping of any pest species for zoological or research purposes to individuals and/or institutions.

The requirements in section 78 of the Act must be met for a person/institution to be granted an exemption. Greater Wellington's operating procedures must also note those requirements in full. The requirements are:

- (a) Greater Wellington is satisfied that granting the exemption will not significantly prejudice the attainment of the Plan's objectives
- (b) Greater Wellington is satisfied that one or more of the following applies:

- (i) The requirement has been substantially complied with and further compliance is unnecessary
- (ii) The action taken on, or provision made for, the matter to which the requirement relates is as effective as or more effective than compliance with the requirement
- (iii) The requirement is clearly unreasonable or inappropriate in the particular case
- (iv) Events have occurred that make the requirement unnecessary or inappropriate in the particular case

Greater Wellington will keep and maintain a register that records the number and nature of exemptions granted (including any agreed memoranda of understanding, management plans and alternative pest management arrangements). The public will be able to inspect this register during business hours.

10 TUKU TAHUA FUNDING

10.1 Introduction

The Act requires that funding to achieve this Plan be thoroughly examined. This includes the reason for, and source of, all funding.

10.2 Funding sources and reasons for funding

The Biosecurity Act and the Local Government (Rating) Act 2002 require that funding be sought from:

- People who have an interest in the Plan
- Those who benefit from the Plan
- Those who contribute to the pest problem

Funding must be sought in a way that reflects economic efficiency and equity. Those seeking funds should also target those funding the plan and the costs of collecting funding.

10.3 Anticipated costs of implementing the Plan

The anticipated costs to Greater Wellington of implementing the Plan reflect a similar level of pest management funding to that in previous years. Greater Wellington expects that the relative cost of pest management will be similar for the duration of the Plan. The cost for implementing the full suite of programmes contained in the Plan is \$61,844,000 over 10 years (see Table 11).

The funding of the implementation of the Plan is from a region-wide general rate set and assessed under the Local Government (Rating) Act 2002, and in determining this Greater Wellington has had regard to those matters outlined in section 100T of the Biosecurity Act.

Where the implementation of this Plan is to be funded by a targeted rate, the matters outlined in section 100T of the Biosecurity Act will be given specific regard as part of the Annual Plan and Long Term Plan process.

The anticipated costs of implementing the Plan reflect a best estimate of expenditure levels. Funding levels will be further examined and set during subsequent Long Term Plan and Annual Plan processes.

Table 11: Indicative costs to implement the Plan (in \$000s, inflation adjusted)

	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
SPECIES-LED	1,127	1,250	1,295	1,317	1,346	1,362	1,387	1,415	1,442	1,474
SITE-LED KNE	1,170	1,183	1,182	1,206	1,226	1,256	1,280	1,309	1,334	1,364
ANIMALS	2,297	2,433	2,477	2,523	2,582	2,618	2,667	2,724	2,776	2,838
SPECIES-LED	1,304	1,378	1,429	1,454	1,487	1,508	1,536	1,569	1,598	1,634
SITE-LED KNE	841	890	924	943	967	981	1,001	1,023	1,043	1,067
PLANTS	2,145	2,268	2,353	2,397	2,454	2,489	2,537	2,592	2,641	2,701
LANDSCAPE - RPPCP	1,649	1,682	1,835	1,865	1,897	1,930	1,963	1,998	2,034	2,071

10.3.1 General rate and revenue

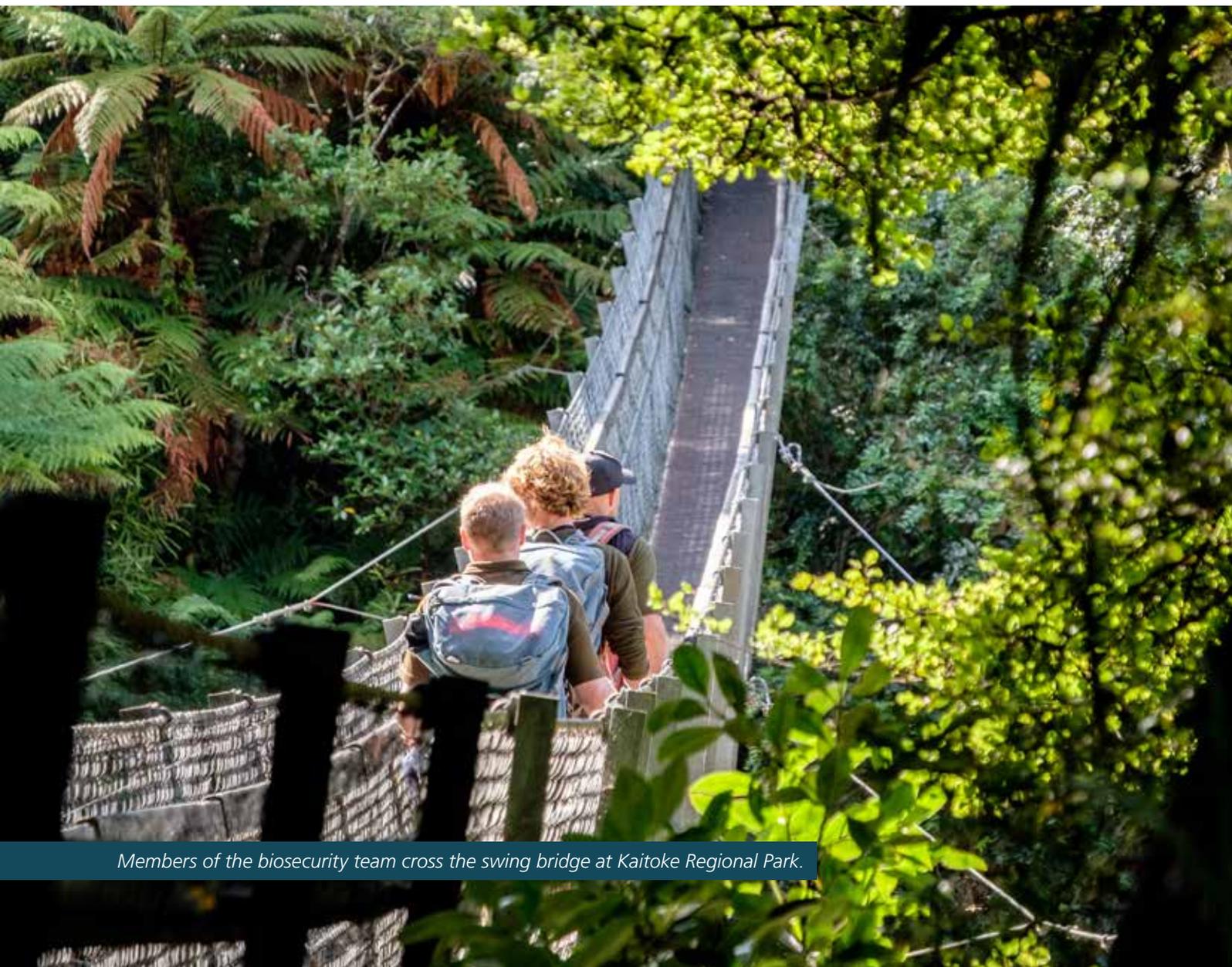
Private land occupiers will contribute to the programmes identified in this Plan through a proportion of the general rate that is levied on every separately rateable property in the region under section 33 of the Rating Powers Act 1988, and a proportion of Greater Wellington's investment revenue.

10.3.2 Recovery of direct costs

Greater Wellington will recover costs for a particular function or service under section 135 of the Biosecurity Act. In the event that Greater Wellington incurs costs arising from a land occupier's failure to comply with a notice of direction, Greater Wellington may:

- Recover actual and reasonable costs associated with additional inspections for pest infestations
- Recover actual and reasonable costs associated with undertaking the control of pest infestations

The amount of money recovered from direct charges will vary from year to year depending on the number of cost recovery pest control operations undertaken, if any. No unusual administrative problems or costs are expected in recovering the costs from any of the occupiers who are required to pay.



Members of the biosecurity team cross the swing bridge at Kaitoke Regional Park.

11 RĀRANGI PUKAPUKA

REFERENCES

- About Tbfree*. (2012). OSPRI. [online] Available at: <https://www.tbfree.org.nz/about-bovine-tuberculosis.aspx>.
- Animal Pests of the Auckland Region*. (2010). [PDF] Auckland: Auckland Regional Council. Available at: <http://pestplants.aucklandcouncil.govt.nz/media/animal%20pests.pdf>.
- Boneseed (Chrysanthemoides monilifera)*. (2005). [PDF] Whakatane: Bay of Plenty Regional Council. Available at: <https://www.boprc.govt.nz/media/321612/PP08-Boneseed.pdf>.
- Boneseed, Chrysanthemoides monilifera subsp. monilifera*. (2003). [PDF] Christchurch: Weedbusters. Available at: <https://www.ecan.govt.nz/document/download?uri=1299332> [Accessed Sep. 2017].
- Canada Goose Branta canadensis maxima*. (2018). [online] Hamilton: Waikato Regional Council. Available at: <https://www.waikatoregion.govt.nz/services/regional-services/plant-and-animal-pests/animal-pests/canada-goose> [Accessed 20 Sep. 2017].
- Environment Topics – Plant Pest Control, Land Plant Pests, Bathurst Bur: Xanthium spinosum*. (1996). [online] Hawke's Bay Regional Council. Available at: <https://www.hbrc.govt.nz/assets/Document-Library/Information-Sheets/Plant-Pests/PCPP21.pdf>.
- Feral Cat, Felis catus linnaeus*. Sustainable Options Pest Animal Control, 18. (2003). [PDF] Whakatane: Bay of Plenty Regional Council. Available at: <https://www.boprc.govt.nz/media/373637/pa18-feral-cats-web.pdf>.
- James, T., Champion, P. and Popay, I. (2010). *An Illustrated Guide to Weed Seeds of New Zealand*. 3rd ed. Christchurch: New Zealand Plant Protection Society.
- King, C. and Barrett, P. (2005). *The Handbook of New Zealand Mammals*. Melbourne: Oxford University Press.
- Northland Regional Pest and Marina Pathway Management Plan Amended Cost Benefit Analysis Report*. (2017). Whangarei: Northland Regional Council (2017).
- Northland Regional Pest and Marine Pathway Management Plan 2017-2027*. (2017). Whangarei: Northland Regional Council.
- Pest Detective: Canada Goose Branta canadensis/Branta canadensis maxima*. (2014). [online] Available at: <http://www.pestdetective.org.nz/culprits/canada-goose> [Accessed 20 Sep. 2017].
- Pest Management Plan for Taranaki – Impact Assessments and Cost-benefit Analyses*. (2017). Stratford: Taranaki Regional Council.
- Proposal for the Canterbury Regional Pest Management Plan 2017-2037*. (2017). Christchurch: Environment Canterbury Regional Council.
- Proposed Regional Pest Management Plan 2018-2038*. (2018). Hawke's Bay Regional Council.
- Proposed Regional Pest Management Plan 2018-2038 – Cost-benefit analysis and cost allocation report*. (2018). Hawke's Bay Regional Council.
- Proposed Regional Pest Management Plan for Taranaki*. (2017). Stratford: Taranaki Regional Council.
- Regional Pest Management Plant Proposal*. (2017). Blenheim: Marlborough District Council.
- Waikato Regional Pest Management Plan*. (2014). Hamilton: Waikato Regional Council.
- Waikato Regional Pest Management Plan 2014-2024, Appendix 1: Cost benefit analysis*. (2014). Hamilton: Waikato Regional Council.
- Williams, P. A. (1997). *Ecology and Management of Invasive Weeds*. Conservation Sciences Publication No.7. [online] Wellington: Department of Conservation. Available at: <http://www.doc.govt.nz/Documents/science-and-technical/csp07-entire.pdf>.

Disclaimer: we have provided the above references to the best of our ability. If the information is no longer available at the locations online, we recommend getting in touch with the organisation that authored the documents.

NGĀ ĀPITI HANGA

APPENDICES

Appendix 1 Glossary of terms

Act	The Biosecurity Act 1993.
Animal	Any mammal, bird, fish, reptile or other vertebrate; any insect or other invertebrate; any living organism, except a plant, a micro-organism or a human being.
Authorised person*	A person for the time being appointed an authorised person under section 103 of the Biosecurity Act 1993.
Beneficiary	The receiver of benefits accruing from the implementation of a pest management measure or the Plan.
Biodiversity	The variability among living organisms from all habitats, including terrestrial, marine and other aquatic ecosystems and the ecological systems of which they are part. This includes diversity within species, between species and of ecosystems.
Biological control	Applying a natural enemy that will prey on or adversely affect a pest with the intention of reducing the level of infestation of the pest.
Biosecurity	Protection within the region from the risks posed by organisms to the environmental, social, cultural and economic wellbeing, through exclusion, eradication and control.
Chief technical officer	A person appointed a chief technical officer under section 101 of the Act. The Ministry of Health, Ministry for Primary Industries and Department of Conservation all have appointed chief technical officers.
Costs and benefits*	Costs and benefits of any kind, whether monetary or non-monetary, and whether quantifiable or non-quantifiable.
Defined area	An area as shown on maps in this Plan that illustrates where a pest designation is operative.
Destroy	Kill or dispose of in a manner that will not allow the pest to re-infest an area. See also the definition used for rule purposes, section 6.25.
Disease	An impairment of the normal state of an organism that interrupts or modifies its vital functions. All species of plant, wild and cultivated alike, are subject to disease.
Distribute	Propagate, offer for sale, or sell, transport, release or in any way spread a pest, whether for commercial gain or not. Distribution has a corresponding meaning.
District council	District council constituted under Part 1A of the Local Government Act 1974.
Ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit.
Effects*	Unless the context otherwise requires, the term "effects": (a) includes the following, regardless of scale, intensity, duration or frequency: (i) a positive or adverse effect and (ii) a temporary or permanent effect; and (iii) a past, present or future effect; and (iv) a cumulative effect that arises over time or in combination with other effects; and (b) also includes the following: a potential effect of high probability; and a potential effect of low probability that has a high potential impact.
Environment*	Includes: a. ecosystems and their constituent parts, including people and their communities; and b. all natural and physical resources; and c. amenity values; and d. the aesthetic, cultural, economic and social conditions that affect or are affected by any matter referred to in parts (a) to (c) of this definition.
Environmental values	Incorporate those values that are associated with the environment.
Eradication	Reduce the infestation level of a subject, or an organism being spread by the subject, to zero levels in an area in the short to medium term.
Exacerbator	A person who, by their activities or inaction, contributes to the creation or continuance of or makes worse a particular pest management problem.

Exclusion	Prevent the establishment of a subject, or an organism being spread by the subject, that is present in New Zealand but not yet established in an area.
Exotic	Introduced species that are not native to New Zealand.
Feral	Existing in a wild state and not reliant directly on human activities for survival.
Feral animal	Any animal not held behind effective fences or otherwise constrained or identified in accordance with the Animal Identification Act 1993.
Feral goat	Any goat not held behind effective fences or otherwise constrained or identified in accordance with the Animal Identification Act 1993.
Feral rabbit	Any rabbit existing in a wild state and not reliant directly on human activities for survival.
Forestry	An area principally comprising exotic tree plantings.
General rate	A rate levied on every separately rateable property within the boundaries of the Wellington Region, pursuant to section 13 of the Local Government (Rating) Act 2002. The rating system to be used shall be on the basis of equalised capital value.
Habitat	The place or type of site where an organism or population normally occurs.
Hapū	Kinship group, clan, tribe, subtribe/section of a large kinship group and the primary political unit in traditional Māori society.
Harmful organism	The term "harmful organism" is used to describe an organism that may cause harm to New Zealand's economic wellbeing, environment, human health, enjoyment of the natural environment, or the relationship between Māori, their culture, and their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga*
Health	In relation to human health, a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity.
Indigenous	Produced by or naturally occurring in the region.
Infestation	Where one or more plant pests occur.
Integrated management	Regionally coordinated responses through different sectors (eg, biodiversity issues and cross-boundary issues).
Iwi	Māori tribe, usually a number of hapū with a common ancestor.
Kaitiakitanga	The exercise of guardianship by the tangata whenua of an area in accordance with tikanga. Māori in relation to natural and physical resources, and includes the ethic of stewardship.
Key Native Ecosystems or KNE	Areas selected to represent a comprehensive range of indigenous biodiversity in the Wellington Region. Sites are prioritised depending on ecological criteria.
Key Native Ecosystem programme	Greater Wellington initiative to protect and enhance native biodiversity in Key Native Ecosystems throughout the Wellington Region through integrated pest management programmes.
Landowner	As for occupier below.
Mana whenua	Customary authority exercised by an iwi or hapū in an identified area.
Management agency*	The Department, authority, or body corporate specified in a pest management plan as the agency given the task of implementing that Plan.
Māori land	Māori customary land and Māori freehold land as defined by section 4 of the Te Ture Whenua Maori Act 1993.
Modified McLean Rabbit Infestation Scale 2012	Refers to Version 1.0 of the Modified McLean Rabbit Infestation Scale, as adopted by the New Zealand Rabbit Coordination Group, 12/10/2012. This guideline outlines a method for monitoring rabbit populations.
Monitor	To gather information, either actively or passively, about pests known to occur in the region to determine the: <ul style="list-style-type: none"> • presence or absence of pests, or • distribution and/or density of pests, or • effects of pests on social, economic or environmental factors, or <ul style="list-style-type: none"> • effects of the Plan on the distribution and/or density of pests, or on social, economic or environmental factors, or • extent to which objectives of the Plan are being achieved.
Non-productive coastal habitats	Any coastal land that does not provide primary income from production-based activities.

Occupier*	(a) In relation to any place physically occupied by any person, means that person; and (b) In relation to any other place, means the owner of the place; and (c) In relation to any place, includes any agent, employee, or other person, acting or apparently acting in the general management or control of the place.
Operational plan	A plan prepared by a management agency under section 85 of the Biosecurity Act 1993.
Organism*	(a) Does not include a human being or a genetic structure derived from a human being; (b) Includes a micro-organism; (c) Subject to paragraph (a) of this definition, includes a genetic structure that is capable of replicating itself (whether that structure comprises all or only part of an entity, and whether it comprises all or only part of the total genetic structure of an entity); (d) Includes an entity (other than a human being) declared by the Governor-General by Order in Council to be an organism for the purposes of the Act; (e) Includes a reproductive cell or developmental stage of an organism; (f) Includes any particle that is a prion.
Passive surveillance	Opportunistic findings by members of the public, other agencies, organisations and voluntary groups, and other Greater Wellington staff.
Pathway*	Means by which unwanted organisms can travel from one area to another within a geographical range, with or without the use of their natural dispersal mechanisms.
Person*	Includes the Crown, a corporation sole, and a body of persons (whether corporate or non-corporate).
Pest*	An organism specified as a pest in a pest management plan.
Pest cat	Any cat within the Wellington Region that is: (i) Not microchipped in an area where microchipping is compulsory, and is free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans, or (ii) Not microchipped, or registered on the New Zealand Companion Animal Register, and is free-living, unowned and unsocialised, and has limited or no relationship with or dependence on humans.
Pest management plan*	A plan to which the following apply: (a) it is for the eradication or effective management of a particular pest or pests; (b) it is made under Part 5; (c) it is a national pest management plan or a regional pest management plan.
Place*	Includes any building, conveyance, craft, land or structure, and the bed and waters of the sea and any canal, lake, pond, river or stream.
Plant	Any grass, tree, shrub, herb, flower, nursery stock, culture, vegetable or other vegetation. This includes the fruit, seed, spore, portion or product of any plant and includes all aquatic plants.
Principal Officer*	The chief executive officer of a regional council, including an acting chief executive.
Productive land	Any land that provides the land owner/occupier with primary income from production-based activities and requires protection from pests to retain ongoing production values.
Progressive containment	To contain or reduce the geographic distribution of a subject, or an organism being spread by the subject, to an area over time.
Public notice	1. A notice published in a newspaper circulating generally in the district to which the subject matter of the notice relates. 2. Where there is no newspaper circulating generally in any district, a notice published on placards affixed to public places in the district to which the subject matter of the notice relates. “Published” and “publicly notified” have corresponding meanings. A public notice setting forth the object, purport or general effect of a document shall in any case be sufficient notice of that document.
Regional policy statement	An operative regional policy statement approved by a regional council under Schedule 1 of the Resource Management Act 1991. This includes all operative changes to such a policy statement (whether arising from a review or otherwise).
Release	For the avoidance of doubt, in relation to any rule within this Plan, release includes, but is not limited to, the deliberate or neglectful liberation of any pest organism.
Road*	Includes all bridges, culverts and fords forming part of any road.
Sale	Includes bartering, offering for sale, exposing, or attempting to sell, or having in possession for sale, or sending or delivering for sale, causing or allowing to be sold, offered or displayed for sale.
Sections 52 and 53 of the Act	Sections 52 and 53 of the Biosecurity Act 1993, which prohibit the communication, release, spread, sale and propagation of pests, must be complied with. These sections should be referred to in full in the Biosecurity Act 1993. A breach of section 52 or 53 creates an offence under section 154(O) of the Act.

Sell	Means to exchange or otherwise dispose of goods or services with or without a transfer or exchange of money or other value. For the purposes of this document, the meaning of 'sell' includes, without limitation, any of the following: (a) exposing goods or services for sale; (b) offering or attempting to sell goods or services; (c) having goods in your possession for sale; (d) sending or delivering for sale; (e) causing, authorising or allowing any of the above actions, and 'sale' has a corresponding meaning.
Service delivery	Pest control work undertaken by Greater Wellington at no direct cost to the land owner/occupier.
Site-led pest programme	The subject, or an organism being spread by the subject, that is capable of causing damage to a place is excluded or eradicated from that place, or is contained, reduced or controlled within the place to an extent that protects the values of that place.
Species	For the purpose of this Plan, a species is considered to include all cultivars, varieties and forms of that species, unless stated otherwise. However, a species is considered to exclude any hybrids of that species with another species, unless stated otherwise.
Stakeholders	Land owners/occupiers identified as beneficiaries of regional intervention, or exacerbators of a pest problem.
Structure	For the purpose of this Plan, any building, equipment, device or other facility made by people and that is fixed to land; and includes any raft.
Sustained control	To provide for the ongoing control of a subject, or an organism being spread by the subject, to reduce its impacts on values and spread to other properties.
Taonga	Treasure or property prized and protected by a tribe. The term carries a spiritual meaning and may be things that cannot be seen or touched.
Territorial authority*	A city council or a district council.
Unwanted organism*	Any organism that a chief technical officer believes is capable or potentially capable of causing unwanted harm to any natural and physical resources or human health; and (a) Includes: (i) Any new organism, if the Environmental Risk Management Authority has declined approval to import that organism; and (ii) Any organism specified in the Second Schedule of the Hazardous Substances and New Organisms Act 1996; but (b) Does not include any organism approved for importation under the Hazardous Substances and New Organisms Act 1996, unless— (i) The organism is an organism which has escaped from a containment facility; or (ii) A chief technical officer, after consulting the Environmental Risk Management Authority and taking into account any comments made by the Authority concerning the organism, believes that the organism is capable or potentially capable of causing unwanted harm to any natural and physical resources or human health.
Urban area	The area included within the metropolitan urban limits and the areas included within the urban zones of rural and coastal settlements.
Wāhi tapu	Places or things that are sacred or spiritually endowed. These are defined locally by the hapū and iwi.
Waterbody	Fresh water or geothermal water in a river, lake, stream, pond, wetland or aquifer, or any part thereof, that is not located within the coastal marine area.
Wetland	Includes permanently or intermittently wet areas, shallow water and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions.
Vector	An organism that transmits a disease or parasite from one animal or plant to another.
Zero density	When there are no known animals or plants left of the pest species of concern, in the area of concern, at the end of annual pest control operations. Zero density is a status slightly less than eradication because of the risk of re-infestation and the longevity of seed banks.
Zone	A specified area within the region as defined by maps within the pest management plan.

*As defined in the Biosecurity Act 1993.

Appendix 2 Harmful organisms

Plants

African club moss	<i>Selaginella kraussiana</i>
African feather grass	<i>Cenchrus macrourus</i>
African fountain grass	<i>Cenchrus setaceus</i>
Apple of Sodom	<i>Solanum linnaeanum</i>
Artemisia	<i>Artemisia spp.</i>
Artillery plant	<i>Galeobdolon luteum</i>
Arum lily	<i>Zantedeschia aethiopica</i>
Asiatic knotweed	<i>Reynoutria japonica</i>
Australian sedge	<i>Carex longebrachiata</i>
Barberry	<i>Berberis glaucocarpa</i>
Bathurst bur	<i>Xanthium spinosum</i>
Blackberry	<i>Rubus spp. barbed cultivars</i>
Blue morning glory	<i>Ipomoea indica</i>
Bomarea	<i>Bomarea caldasii, B. multiflora</i>
Boxthorn	<i>Lycium ferocissimum</i>
Broom	<i>Cytisus scoparius</i>
Brush wattle	<i>Paraserianthes lophantha</i>
Buddleia	<i>Buddleja davidii</i>
Californian arrowhead	<i>Sagittaria montevidensis</i>
Californian bulrush	<i>Schoenoplectus californicus</i>
Cape honey flower	<i>Melianthus major</i>
Cape ivy	<i>Senecio angulatus</i>
Cape tulip	<i>Moraea flaccida (syn. Homeria collina)</i>
Chilean flame creeper	<i>Tropaeolum speciosum</i>
Chinese pennisetum	<i>Pennisetum alopecuroides</i>
Chocolate vine	<i>Akebia quinata</i>
Climbing asparagus	<i>Asparagus scandens</i>
Climbing dock	<i>Rumex sagittatus</i>
Cotoneaster	<i>Cotoneaster franchetii, C. horizontalis</i>
Crack willow	<i>Salix fragilis</i>
Darwin's barberry	<i>Berberis darwinii</i>
Delta arrowhead	<i>Sagittaria platyphylla</i>
Didymo	<i>Didymosphenia geminata</i>
Elaeagnus	<i>Elaeagnus x reflexa</i>
Evergreen buckthorn	<i>Rhamnus alaternus</i>
German ivy	<i>Senecio mikanioides</i>
Giant knotweed	<i>Reynoutria sachalinensis and hybrids</i>
Giant Hogweed	<i>Heracleum mantegazzianum</i>
Gorse	<i>Ulex europaeus</i>

Great bindweed	<i>Calystegia silvatica</i>
Gunnera	<i>Gunnera tinctoria</i>
Hawaiian arrowhead	<i>Sagittaria sagittifolia</i>
Hawthorn	<i>Crataegus monogyna</i>
Hemlock	<i>Conium maculatum</i>
Himalayan honeysuckle	<i>Leycesteria formosa</i>
Hornwort	<i>Ceratophyllum demersum</i>
Houttuynia	<i>Houttuynia cordata</i>
Hydrilla	<i>Hydrilla verticillata</i>
Japanese honeysuckle	<i>Lonicera japonica</i>
Japanese spindletree	<i>Euonymus japonicus</i>
Johnson grass	<i>Sorghum halepense</i>
Lagarosiphon	<i>Lagarosiphon major</i>
Madeira vine	<i>Anredera cordifolia</i>
Manchurian wild rice	<i>Zizania latifolia</i>
Marram grass	<i>Ammophila arenaria</i>
Mexican daisy	<i>Erigeron karvinskianus</i>
Mile-a-minute	<i>Dipogon lignosus</i>
Mist flower	<i>Ageratina riparia</i>
Monkey apple	<i>Syzygium smithii</i>
Montbretia	<i>Crococsmia x crocosmiiflora</i>
Nasturtium	<i>Nasturtium officinalis</i>
Nodding thistle	<i>Carduus nutans</i>
Noogoora bur	<i>Xanthium occidentale</i>
Pampas grass	<i>Cortaderia jubata, C. selloana</i>
Parrot's feather	<i>Myriophyllum aquaticum</i>
Perennial nettle	<i>Urtica dioica (subsp.)</i>
Periwinkle	<i>Vinca major</i>
Phragmites	<i>Phragmites australis</i>
Plectranthus	<i>Plectranthus ciliatus</i>
Polypodium (common polypody)	<i>Polypodium vulgare</i>
Purple ragwort	<i>Senecio glastifolius</i>
Pussy willow	<i>Salix cinerea</i>
Pyp grass	<i>Ehrharta villosa</i>
Ragwort	<i>Senecio jacobaea</i>
Saffron thistle	<i>Carthamus lanatus</i>
Salvinia	<i>Salvinia molesta</i>
Silver poplar	<i>Populus alba</i>
Smilax	<i>Asparagus asparagoides</i>
Spanish heath	<i>Erica lusitanica</i>
Stinking iris	<i>Iris foetidissima</i>
Sweet pea shrub	<i>Polygala myrtifolia</i>

Sycamore	<i>Acer pseudoplatanus</i>
Tradescantia	<i>Tradescantia fluminensis</i>
Tuber ladder fern	<i>Nephrolepis cordifolia</i>
Variogated thistle	<i>Silybum marianum</i>
Velvet groundsel	<i>Senecio petasitis</i>
Water hyacinth	<i>Eichhornia crassipes</i>
White bryony	<i>Bryonia cretica subsp. dioica</i>
White edged nightshade	<i>Solanum marginatum</i>
Wild ginger	<i>Hedychium, gardnerianum, H. flavescens</i>
Wild onion	<i>Allium triquetum</i>

Animals

Argentine ant	<i>Linepithema humile</i>
Australian subterranean termite	<i>Coptotermes acinaciformis</i>
Brown bullhead catfish	<i>Ameiurus nebulosus</i>
Canada goose	<i>Branta canadensis</i>
Darwin's ant	<i>Doleromyrma darwiniana</i>
Feral pig	<i>Sus scrofa</i>
Gambusia	<i>Gambusia affinis</i>
Goldfish	<i>Carassius auratus</i>
Hare	<i>Lepus europaeus occidentalis</i>
House mouse	<i>Mus musculus</i>
Koi carp	<i>Cyprinus rubrofuscus</i>
Plague skink	<i>Lampropholis delicata</i>
Rainbow lorikeet	<i>Trichoglossus haematodus</i>
Red-eared slider turtle	<i>Trachemys scripta elegans</i>
Rudd	<i>Scardinius erythrophthalmus</i>
Sulphur-crested cockatoo	<i>Cacatua galerita</i>
Tench	<i>Tinca tinca</i>

Appendix 3 Acronyms

GNR – Good Neighbour Rule

KNE – Key Native Ecosystem

NIPR – National Interest Pest Response

NPD – National Policy Direction for Pest Management 2015

NPPA – National Pest Plant Accord

NPPBA – National Pest Pet Biosecurity Accord

NRP – Natural Resources Plan for the Wellington Region

the Plan – Greater Wellington Regional Pest Management Plan

RPMP – Regional Pest Management Plan

RPCP – Regional Predator Control Programme

RTC – Residual Trap Catch

TA – Territorial authority

Tb – Tuberculosis

Appendix 4 Participants in the New Zealand biosecurity pest management system – roles and responsibilities

The **Ministry for Primary Industries** is in charge of border protection and responding to the incursions of new to New Zealand organisms.

The **Department of Conservation** undertakes pest management work on Crown land that is managed by the Department of Conservation. DOC is also the government agency responsible for facilitating the overall Predator Free 2050 programme and the administrator for the Wild Animal Control Act 1977, Wildlife Act 1953 and Freshwater Fisheries Regulations 1983.

OSPRI NZ is responsible for the implementation of the National Pest Management Plan for Bovine Tuberculosis. It runs the national bovine Tb programme, which aims to eradicate bovine Tb by 2055. This programme is run by a subsidiary company called TBfree.

Territorial authorities undertake pest management in their reserves or pest management on private land for selected pests. Greater Wellington works closely with TAs in our region (under a Memorandum of Understanding between Greater Wellington and a number of TAs for the delivery of KNE and TA reserves programmes) and also delivers pest management services to a number of TAs.

Greater Wellington Regional Council is the key organisation responsible for delivering large-scale pest control beyond Crown land and administering this Plan. We actively work with private landowners, territorial authorities, community groups and iwi in planning and undertaking “on the ground action” for pest control.

Crown agencies (Land Information New Zealand, New Zealand Transport Agency and KiwiRail) are responsible for pest management on Crown land (outside of DOC public conservation estate), road and rail corridors.

Appendix 5 NRP Maps

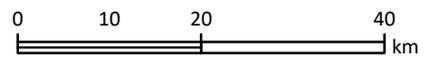
Outstanding water bodies (Schedules A1, A2, A3)

Map 1



Outstanding Waterbodies

-  Lake
-  River
-  Wetland
-  Region boundary line
-  State Highway



1:750,000

This version of the map is not complete. The version of this map available online through the online web map viewer shows the complete, detailed information on a GIS overlay that is not shown on this hard copy. The online version is available on the Council's website at <https://mapping.gw.govt.nz/gwrc/> (select theme Natural Resources Plan) and can be accessed from the Council offices or public library.

Copyright
 Basemap: Eagle Technology, GWRC, LINZ
 Topographic & Cadastral: LINZ, CoreLogic
 Projection: NZTM 2000



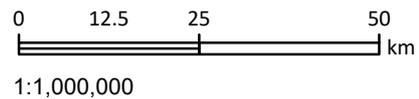
Ngā Taonga Nui a Kiwa

Schedule B

Map 2



-  Ngā Taonga Nui a Kiwa
-  State Highway
-  Region boundary line



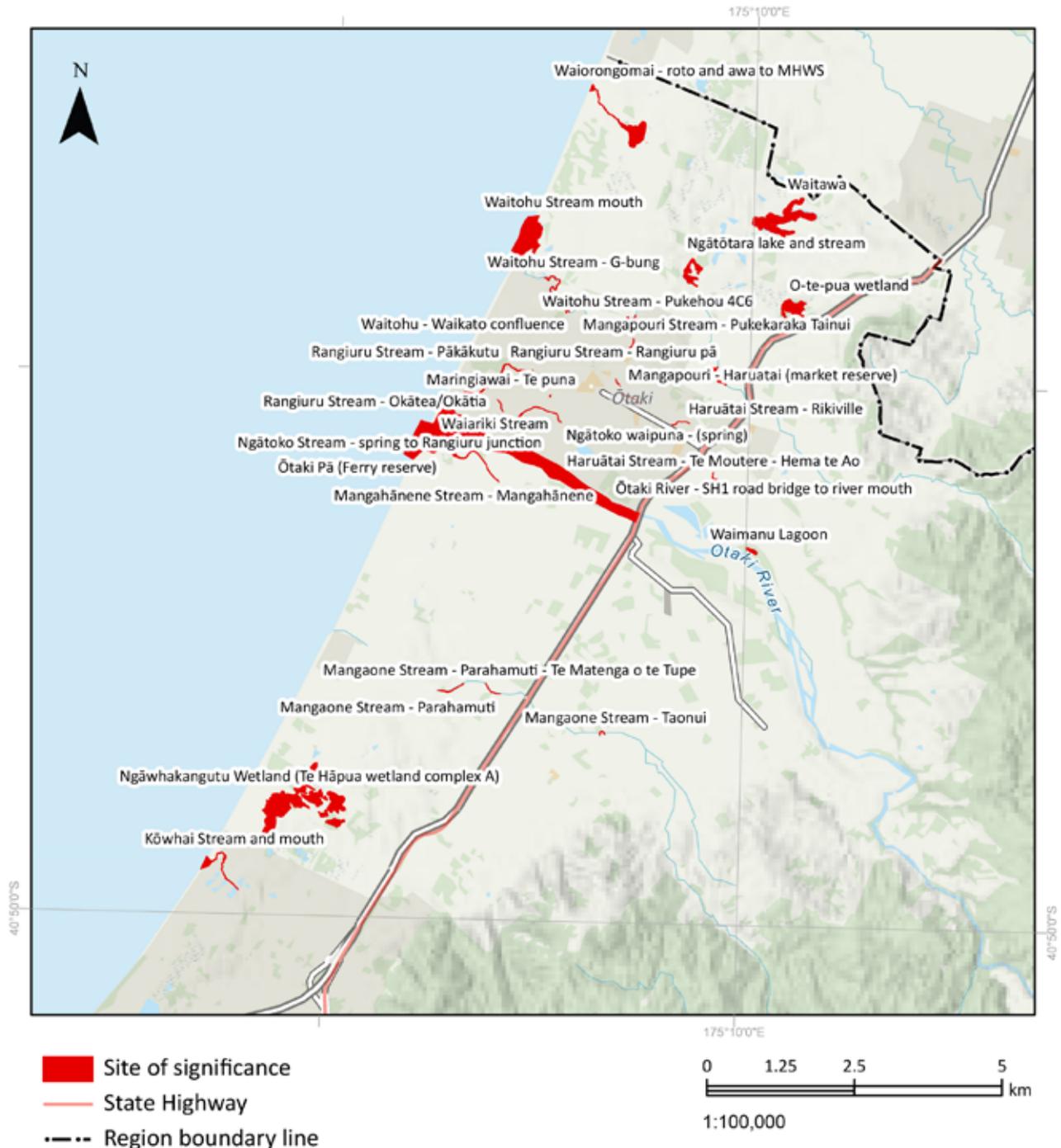
This version of the map is not complete. The version of this map available online through the online web map viewer shows the complete, detailed information on a GIS overlay that is not shown on this hard copy. The online version is available on the Council's website at <https://mapping.gw.govt.nz/gwrc/> (select theme Natural Resources Plan) and can be accessed from the Council offices or public library.

Copyright
 Basemap: Eagle Technology, GWRC & LINZ
 Topographic & Cadastral: LINZ, CoreLogic
 Projection: NZTM 2000



Sites of significance to Ngā Hapū ō Ōtaki (Schedule C1)

Map 3

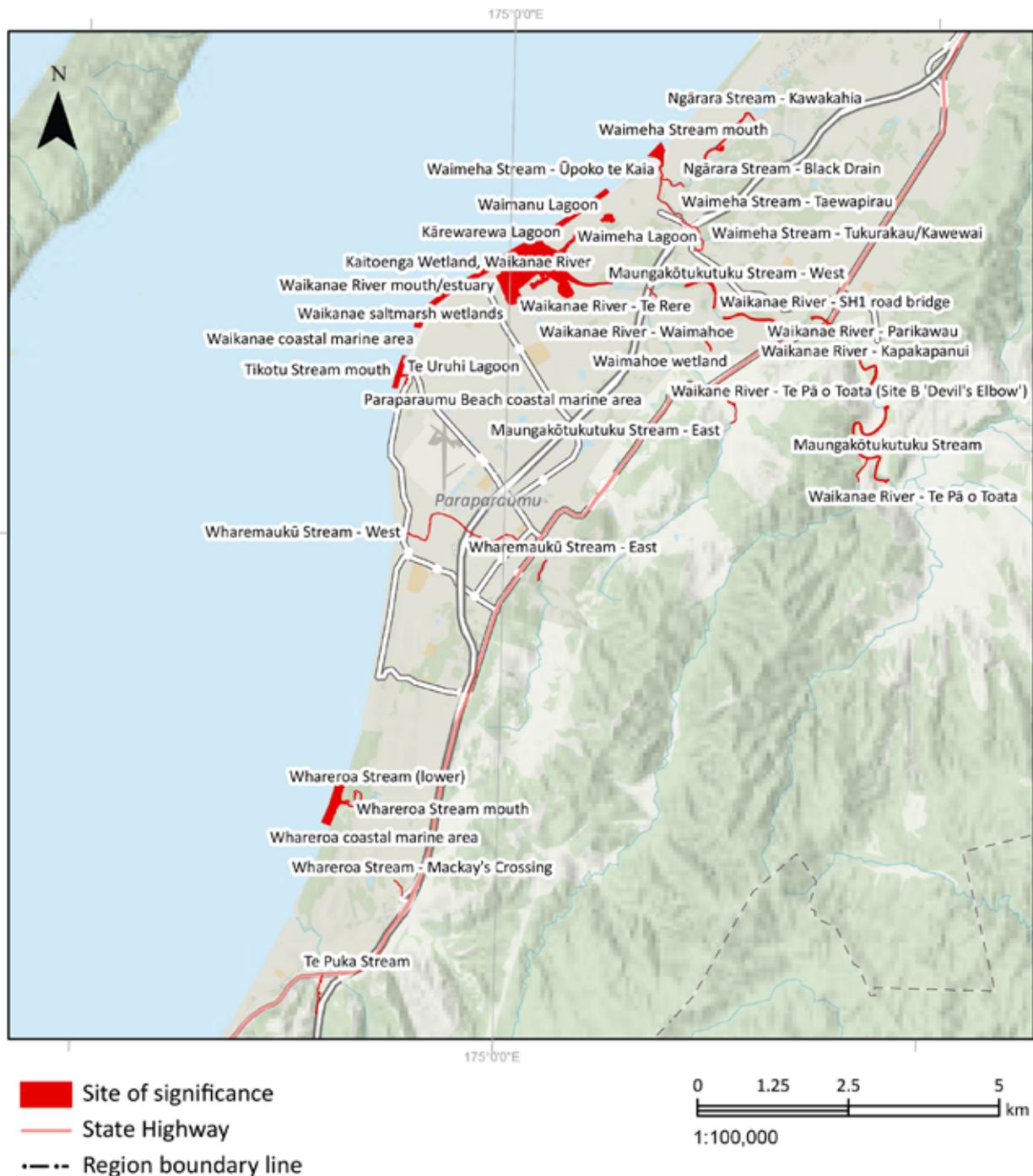


This version of the map is not complete. The version of this map available online through the online web map viewer shows the complete, detailed information on a GIS overlay that is not shown on this hard copy. The online version is available on the Council's website at <https://mapping.gw.govt.nz/gwrc/> (select theme Natural Resources Plan) and can be accessed from the Council offices or public library.

Copyright
 Basemap: Eagle Technology, GWRC & LINZ
 Topographic & Cadastral: LINZ, CoreLogic
 Projection: NZTM 2000

Sites of significance to Te Ātiawa ki Whakarongotai (Schedule C2)

Map 4



This version of the map is not complete. The version of this map available online through the online web map viewer shows the complete, detailed information on a GIS overlay that is not shown on this hard copy. The online version is available on the Council's website at <https://mapping.gw.govt.nz/gwrc/> (select theme Natural Resources Plan) and can be accessed from the Council offices or public library.

Copyright
 Basemap: Eagle Technology, GWRC & LINZ
 Topographic & Cadastral: LINZ, CoreLogic
 Projection: NZTM 2000



For more information, please contact Greater Wellington:

Wellington office

PO Box 11646
Wellington 6142

Upper Hutt office

PO Box 40847
Upper Hutt 5018

Masterton office

PO Box 41
Masterton 5840

www.gw.govt.nz

info@gw.govt.nz

T 04 384 5708



GW/BIO-G-2019/74
August 2023

