Mahere ā-Rohe Whakahaere Kaupapa
Koiora Orotā mō Tāmaki Makaurau

Auckland Regional Pest Management Plan

2020 - 2030

Find out more: phone 09 301 0101
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Auckland Council
Te Kaunihera o Tāmaki Makaurau

Cover photo
Ship rat eating a blackbird's egg.

Regional Pest Management Plan 2020 - 2030

Operative in part

Pursuant to section 77 of the Biosecurity Act 1993 the Auckland Regional Pest Management Plan 2020 - 2030 is made operative, excluding the marine pest provisions (section 2.4 and section 7.7.11)

THE COMMON SEAL of the **AUCKLAND COUNCIL** was hereby affixed under the authority of council:

~~Mayor / Deputy Mayor~~ / Chief Executive / ~~Chief Officer~~

~~Deputy Mayor / Chief Executive / Chief Officer~~ / General Counsel

This plan became operative in part on 10 November 2020.

Regional Pest Management Plan 2020 - 2030

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~~Mayor~~ / ~~Deputy Mayor~~ / Chief Executive / ~~Chief Officer~~

~~Deputy Mayor~~ / ~~Chief Executive~~ / ~~Chief Officer~~ / General Counsel

This plan became fully operative on 25 January 2021.

Rārangi Kōrero / Table of Contents

He Mihi

Tuia ki te rangi

Tuia ki te whenua

Tuia ki te moana

Tuia te here tangata

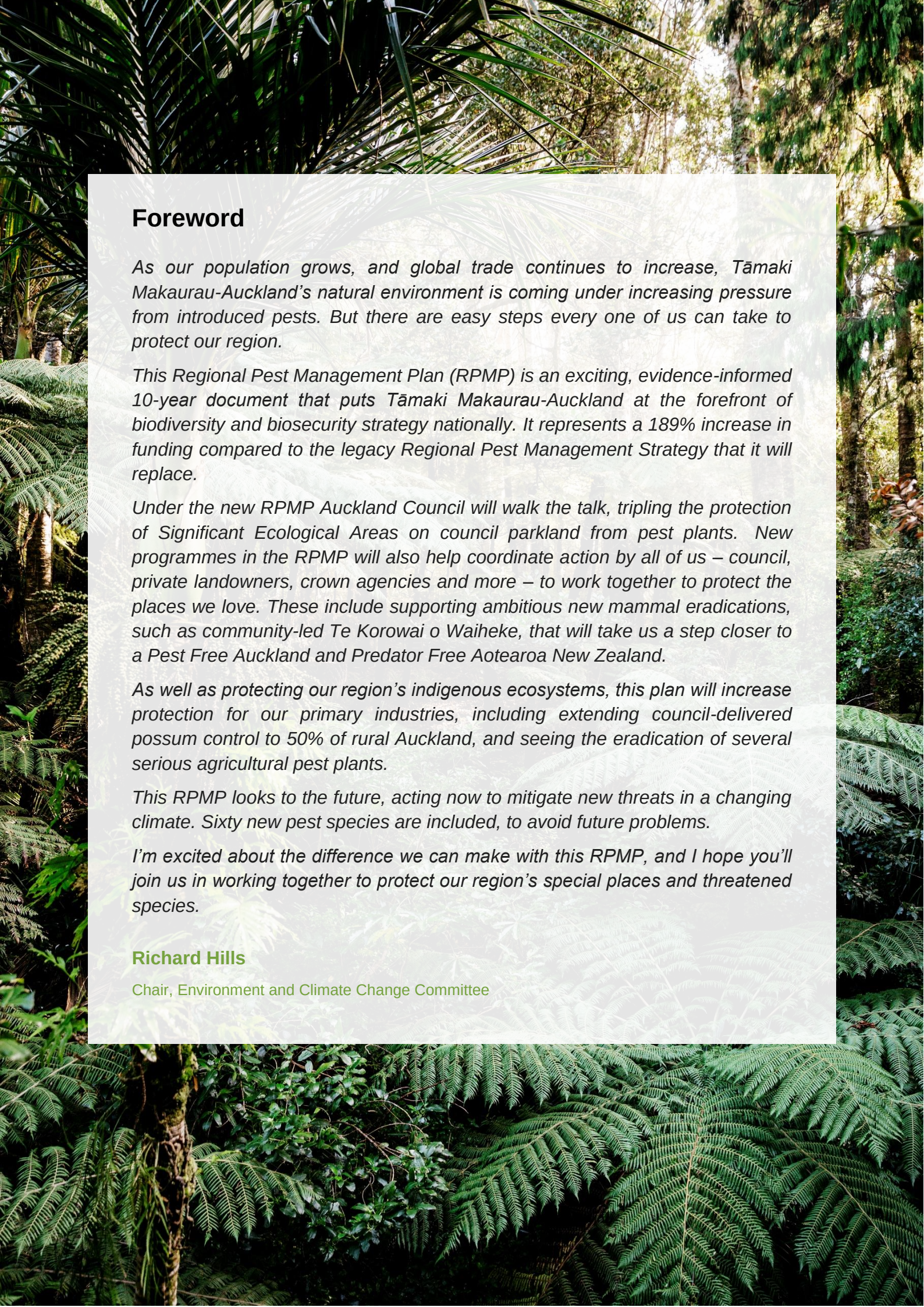
Ka rongo te pō ka rongo te ao.

Bind the domain of the upper realm

Bind the domain of the land,

Bind the domain of the ocean

Bind the tapestry of life which affirms our connection to the natural world and to one another



Foreword

As our population grows, and global trade continues to increase, Tāmaki Makaurau-Auckland's natural environment is coming under increasing pressure from introduced pests. But there are easy steps every one of us can take to protect our region.

This Regional Pest Management Plan (RPMP) is an exciting, evidence-informed 10-year document that puts Tāmaki Makaurau-Auckland at the forefront of biodiversity and biosecurity strategy nationally. It represents a 189% increase in funding compared to the legacy Regional Pest Management Strategy that it will replace.

Under the new RPMP Auckland Council will walk the talk, tripling the protection of Significant Ecological Areas on council parkland from pest plants. New programmes in the RPMP will also help coordinate action by all of us – council, private landowners, crown agencies and more – to work together to protect the places we love. These include supporting ambitious new mammal eradications, such as community-led Te Korowai o Waiheke, that will take us a step closer to a Pest Free Auckland and Predator Free Aotearoa New Zealand.

As well as protecting our region's indigenous ecosystems, this plan will increase protection for our primary industries, including extending council-delivered possum control to 50% of rural Auckland, and seeing the eradication of several serious agricultural pest plants.

This RPMP looks to the future, acting now to mitigate new threats in a changing climate. Sixty new pest species are included, to avoid future problems.

I'm excited about the difference we can make with this RPMP, and I hope you'll join us in working together to protect our region's special places and threatened species.

Richard Hills

Chair, Environment and Climate Change Committee

1 Kupu Whakataki / Introduction

1.1 Kaihora me ōna tikanga / Proposer and purpose

The Auckland Council has a regional leadership role under the Biosecurity Act 1993 (the Biosecurity Act). The purpose of the RPMP is to outline the framework to efficiently and effectively manage or eradicate specified organisms in the Tāmaki Makaurau / Auckland region. Doing so will:

- minimise the actual or potential adverse or unintended effects associated with those organisms; and
- maximise the effectiveness of individual actions in managing pests through a regionally coordinated approach.

Many organisms in the Tāmaki Makaurau / Auckland region are considered undesirable or a nuisance, but not all can be effectively managed, mainly due to resource constraints and limitations with pest control methods. The Biosecurity Act has prerequisite criteria that must be met to justify intervention using the regulatory powers of the Act. This Proposal identifies those organisms classified as pests to be managed through the RPMP.

This RPMP empowers the Auckland Council to exercise the relevant strategic, advisory, service delivery, regulatory and funding provisions available under the Biosecurity Act to deliver the specific objectives identified in Part Two: Pest Management.

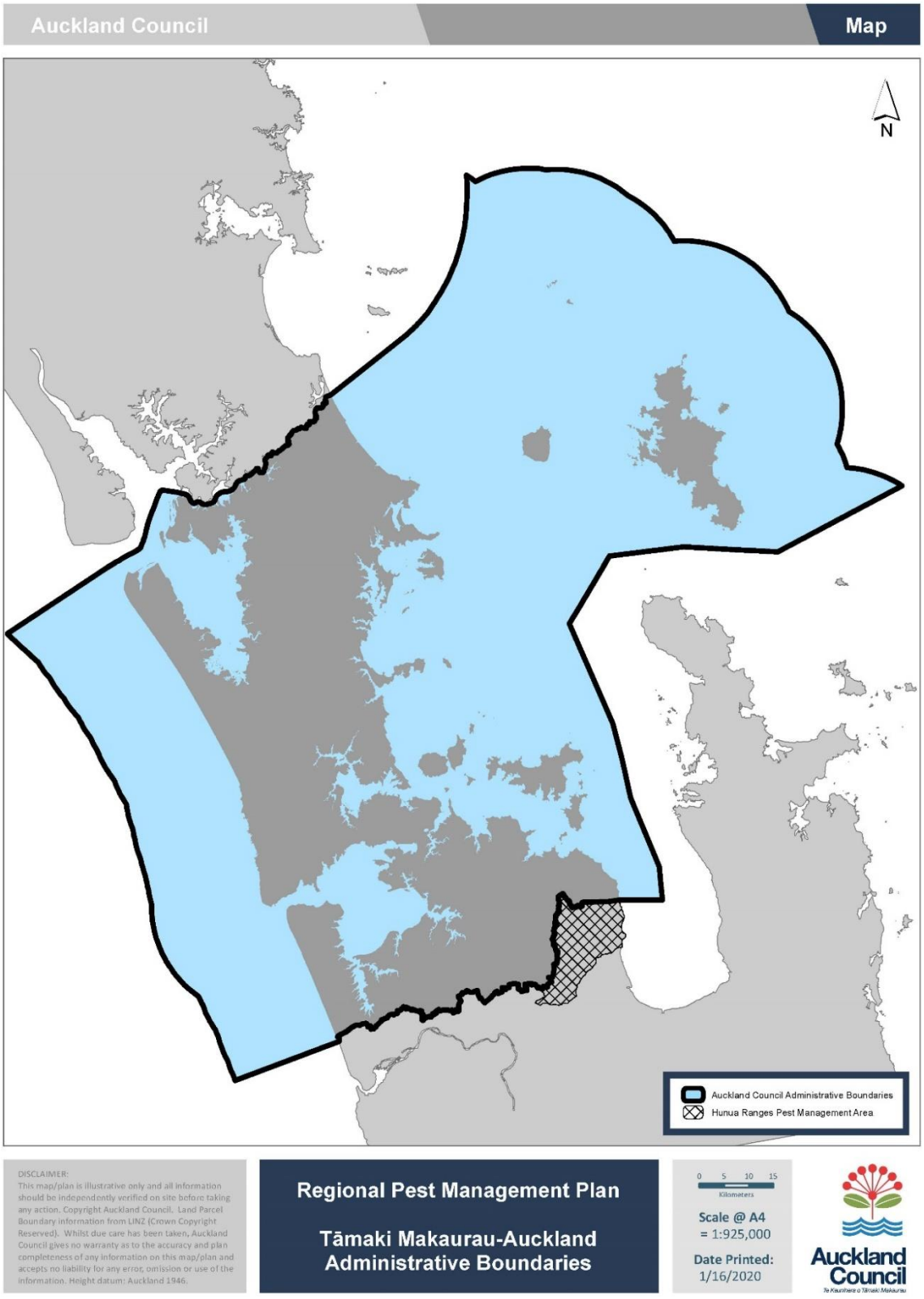
Section two of this document sets out the broader context of managing pests in Tāmaki Makaurau / Auckland, including an overview of the regulatory and non-regulatory actions of the Auckland Council which support the provisions of the RPMP.

Section four of the RPMP sets out the outcomes sought by the plan, and describes the high-level groups of programmes that work together to achieve these outcomes.

Section seven sets out the statutory programmes themselves, and accompanying objectives and interemediate outcomes for each programme.

1.2 Uhinga / Coverage

The RPMP will operate within the administrative boundaries of the Tāmaki Makaurau / Auckland region and covers a total area (land and sea) of 1,615,972 ha (see Map 1).



Map 1. Administrative boundaries of the Tāmaki Makaurau / Auckland region and Hunua Ranges Pest Management Area[1].

[1] Auckland Council is also the management agency for that portion of the Hunua Ranges falling in the Waikato region ('Hunua Ranges Pest Management Area' in Map 1, see also section 2.5), in order to provide for consistent integrated management across this ecologically important area. However, the rules of the Waikato Regional Pest Management Plan apply in this area.

1.3 Wā kawenga / Duration

The RPMP will commence on the date on which the Council fixes the Council's seal and it becomes operative as a Regional Pest Management Plan under s77 of the Biosecurity Act. It will remain in force for a period of 10 years following commencement. The RPMP may cease at an earlier date if the Auckland Council declares, by public notice, that the RPMP has achieved its objectives. It may also cease at an earlier date if, following a review, it is revoked.

1.4 Arotake mahere / Plan review

Auckland Council may review the RPMP or any part of it if they have reason to believe that the RPMP, or part of the RPMP, is failing to achieve its objective or that relevant circumstances have changed since the RPMP commenced. This will enable the Council to quickly respond, as required, to any new issues that may emerge over the life of this plan, such as new regional incursions, including where central government responses have not been undertaken, or have been discontinued.

The Council must review the RPMP if it has not been reviewed for ten years, or if it is due to terminate in less than 12 months and it is proposed to extend the RPMP's duration. A review must also be initiated if the RPMP is inconsistent with a National Policy Direction (NPD), and any changes to resolve any inconsistency have a significant effect on a person's rights and obligations.

A council can make minor amendments to the RPMP without needing a review. Any minor amendment:

- must not significantly affect any person's rights and obligations
- must not be inconsistent with the NPD.

A review may result in no change to the RPMP, or may extend its duration.

2 He rauhanga kōrero ā-mahere, ā-ture, ā-rautaki / Planning, statutory and strategic background

2.1 Rauhanga ā-ture / Legislative background

Auckland Council is a unitary authority, with the powers, duties and responsibilities of both a territorial authority and a regional council. Regional councils and unitary authorities undertake local government activities and actions under several legislative mandates. All regional councils and unitary authorities in Aotearoa / New Zealand have favoured the Biosecurity Act 1993 for pest management by preparing and operating their RPMPs. Most councils, including Auckland Council, also undertake a range of non-regulatory pest management responses additional to those specifically provided by the Biosecurity Act.

2.1.1 Ture Ārai Koiora 1993 / Biosecurity Act 1993

Auckland Council, as a unitary authority can use its regulatory powers under the Biosecurity Act to eradicate or effectively manage pests in its region, including unwanted organisms. A regional council is not legally obliged to manage a pest, or other organism to be controlled, unless it chooses to do so. As such, the Biosecurity 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. Indeed, as noted in section 1.1 above, the Biosecurity Act has prerequisite criteria that must be met to justify such intervention.

Part 5: Managing pests and harmful organisms

Part 5 of the Biosecurity Act sets out the statutory scheme for pest management. The primary purpose for pest management is to provide for harmful organisms that are present in New Zealand to be managed effectively or eradicated. A harmful organism is assigned pest status if included in a pest management plan (also see the prerequisites in ss69–78 of the Biosecurity Act). Part 5 includes the need 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). Part 5 also addresses the issue of who should pay for the cost of pest management. (See section 10 for cost allocation information).

Part 6: Administrative provisions

Part 6 of the Biosecurity Act sets out a range of powers that authorised persons can utilise in pest management (e.g. the power to inspect, to give directions, or to apply article or substance to a place). Part 6 also provides for movement controls relating to certain sites, particularly Restricted Places and Controlled Areas. For instance a Controlled Area Notice (CAN) is in place in the Hauraki Gulf, and this Regional Pest Management Plan aligns programmes with that CAN.

Part 9: Miscellaneous provisions

Part 9 of the Biosecurity Act allows for the national registration of Unwanted Organisms, being those capable or potentially capable of causing harm to any natural and physical

resources or human health. Identification of a species as an Unwanted Organism means regulatory programmes can be developed to address that organism, without it needing to be included in a pest management plan. For example, prior to inclusion in this RPMP the regulatory response under the Biosecurity Act in Tāmaki Makaurau / Auckland to kauri dieback pathogen (*Phytophthora agathidicida*) was mandated only by its status as a registered Unwanted Organism. In such instances, the powers under the Biosecurity Act are held by central government (the Ministry for Primary Industries). While Council can still manage Unwanted Organisms, enforcement relies on delegation of powers from the Ministry to Council. Unwanted Organisms can also be included in Pest Management Plans if that will enable more effective and transparent management responses, as is the case for kauri dieback pathogen.

Myrtle rust *(Austropuccinia psidii)* is an identified Unwanted Organism with the potential to be a serious disease for members of the myrtle (Myrtaceae) family of plants. Its presence on the mainland of Aotearoa / New Zealand was confirmed in April 2017, on pōhutukawa seedlings in a nursery in Kerikeri. There are 27 native species and several highly valued exotic species that are members of the Myrtle family, including pōhutukawa, rātā, mānuka, kānuka, ramarama, maire, feijoa and Eucalyptus. To date, ramarama and pōhutukawa appear to be among the worst affected species, although it may take many years to fully understand the impacts of myrtle rust on native plant species and ecosystems. Auckland Council is contributing to a nationally coordinated approach to the new threat posed by myrtle rust, led by the Ministry for Primary Industries and including development of a national Myrtle Rust Long-term Strategy. As a primarily wind-borne pathogen, options for successful regional intervention through an RPMP are limited. However, once a fuller understanding of impacts and management options is developed, Council may consider addition of myrtle rust to this current or a future Regional Pest Management Plan. In the interim, Council will continue to rely on myrtle rust's Unwanted Organism status and the powers that status provides to the Ministry of Primary Industries (which, as noted above, may be delegated to Council if agreed with the Ministry).

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

Part 2 of the Biosecurity Act sets out the functions, powers and duties of central and local government.

Central Government

The Minister of Primary Industries is responsible for the administration and coordinated implementation of the Biosecurity Act, and for recording and coordinating reports of suspected new organisms and managing appropriate responses to such reports.

Central government performs a national biosecurity leadership role and is responsible for responding to and managing biosecurity issues at the border – i.e. managing processes for preventing the incursion of problematic organisms, and responding to these when they are detected in Aotearoa / New Zealand for the first time. Auckland Council may assist MPI in such responses, as a member of the National Biosecurity Capability Network.

Once a species has become established in Aotearoa / New Zealand, beyond the stage where it can be eradicated, the Biosecurity Act mandates a range of responses, including the establishment of National and Regional Pest Management Plans.

The Minister is also required to provide leadership through the NPD, which provides mandatory directions on the development and content of pest management plans (s56 of the Biosecurity Act).

Local Authorities

Regional councils are required to provide regional leadership for biosecurity activities to prevent, reduce, or eliminate adverse effects from harmful organisms within their region.

Some of the ways regional councils can provide leadership 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 enhance effectiveness, efficiency and equity of programmes.

Section 13(1) of the Biosecurity Act sets out the powers that support regional councils in this leadership role. These are:

- powers to establish (e.g. appoint a management agency for a plan; implement a small-scale management programme)
- powers to research and prepare (e.g. gather information; keep records; prepare a proposal to make and implement an RPMP)
- powers to enable (e.g. giving councils the power to cause monitoring to determine whether pests are present and surveillance of pests is to be carried out);
- powers to review (e.g. disallow an operational plan; review, amend, revoke or replace a plan).

Section 2.3.1 of part 2 of this document sets out in more detail how Auckland Council exercises regional leadership in relation to pest management in Tāmaki Makaurau / Auckland.

Part 6: Administering an RPMP

Once operative, an RPMP is supported by elements of Part 6 (as nominated in the plan) that focus on the voluntary and mandatory actions of a regional council. For example, a regional council must assess any other proposal for an RPMP, must prepare an operational plan for any RPMP (if the management agency for it), and must prepare an annual report on the operational plan.

Changes to the Act since 1993

The Biosecurity Act has been amended since 1993, including most relevantly through the Biosecurity Law Reform Act 2012. Important changes include:

- legislative (e.g. being able to bind the Crown to stated good neighbour rules (GNR) within a pest management plan, or to rules within a pathway management plan)

- structural (e.g. giving regional councils a clear regional leadership role in managing pests; adding pathway management to the suite of pest management programmes; linking programmes with stated intermediate outcomes and programme objectives; using consistent terms in pest management programmes)
- compliance related (e.g. setting out the extra requirements under the NPD that must be complied with; introducing greater transparency of risk assessment in the analysis of benefits and costs)
- procedural (e.g. allowing funding, roles, and responsibilities related to small-scale management programmes to be delegated; allow a partial review (including adding a pest or pathway management plan) to be done at any time)
- consultative (e.g. increasing the flexibility in public consultation).

2.1.2 Ture Tiaki Rawa Taiao 1991 / Resource Management Act 1991

Regional councils also have responsibilities under the Resource Management Act 1991 (RMA) to achieve integrated management of the natural and physical resources of the region, including the Coastal Marine Area (CMA). These responsibilities are driven by the purpose and principles of the RMA set out in Part 2. These include the requirement to sustain the potential of natural and physical resources, safeguard the life-supporting capacity of ecosystems and protect environmentally significant areas and habitats (ss5(2), 7(d) and 6(c) of the RMA).

The RMA sets out the functions of regional councils in relation to the control of the use of land for the purpose of maintenance and enhancement of ecosystems, water bodies and coastal water (s30(1)(c)(iiia)), the control of actual or potential effects of use, development or protection of land (including the CMA) in the region (s30(1)(d)(v)) and the establishment, implementation and review of objectives, policies and methods for maintaining indigenous biological diversity (s30(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 a biosecurity risk 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 the problem is not exacerbated by activities regulated under the RMA, and which promote positive biosecurity actions.

The Biosecurity Act cannot override any controls imposed under the RMA, for example, bypassing resource consent requirements, unless the Minister has made a temporary exemption (up to 20 working days) from the provisions of Part 3 of the RMA in an attempt to eradicate an organism and other conditions are met (s7A).

Neither does the Biosecurity Act restrict the range of pests that can be managed using RMA tools. While all regulatory responses must be fair, reasonable and justified, the RMA and Biosecurity Act have different mandates. The RPMP specifies pests and programmes which

have been justified through a Cost-Benefit Analysis process, and which frequently require proactive pest control by land occupiers and others. Pest control conditions attached to a consent required under the RMA have the purpose of avoiding, remedying, mitigating or offsetting adverse effects arising from that consent, or because a district or regional plan anticipates a certain level of environmental quality and management post-development.

The Council's primary resource management tool is the Auckland Unitary Plan which includes the Regional Policy Statement, the regional coastal plan and district and regional plans (with the exception of the district plan for the Tīkapa Moana / Hauraki Gulf Islands, where the Auckland Council District Plan (HGI Section) still applies until the AUP is amended to include this area).

Provisions in the AUP promote effective biosecurity management through:

- identification of the threat of pests to the maintenance of indigenous biodiversity
- requirements for pest control as a condition of resource consents affecting natural resources, including requirements to address existing pests at a site, or through the use of measures to reduce the likelihood of pests establishing (e.g. requiring certain procedures are followed in revegetation programmes to address myrtle rust)
- provisions which facilitate and promote the removal of pests
- land disturbance and vegetation removal rules relating to the movement of soil and kauri material to reduce the risk of spreading kauri dieback pathogen (*Phytophthora agathidicida)*
- requirements relating to the level and cleaning of hull fouling on boats
- linking of biosecurity considerations to the provision and management of aquaculture, marinas and other activities.

The Auckland Council District Plan (HGI Section) has provisions which address biosecurity issues, principally through the inclusion of an appendix of identified plant and animal pests, the control of which is generally identified as a permitted activity (i.e. not subject to the same level of regulatory control as actions relating to other species). Some, but not all of these species are addressed in this RPMP (see section 7.1 for the programmes in the RPMP as they apply to the Hauraki Gulf Controlled Area).

2.1.3 Ture Kāwanatanga ā-Rohe 2002 / Local Government Act 2002

The purpose of the Local Government Act 2002 (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 to deliver on requirements under the Biosecurity Act.

The Council undertakes a range of non-regulatory and land management biosecurity activities which are provided by the LGA, including on its own land and in order to support community initiatives.

2.1.4 Ērā atu ture whai pānga/ Other relevant legislation

Activities in implementing this plan must comply with (and not derogate from) other legislation specified in s7 of the Biosecurity Act. Particular relevant requirements are noted below.

- The **Wild Animal Control Act** 1977 declares deer, chamois or tahr, and wild pigs and goats to be wild animals. This Act controls the hunting and release of wild animals 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.
- The **Wildlife Act** 1953 controls and protects wildlife not subject to the Wild Animal Control Act 1977. It defines wildlife which are not protected (e.g. feral cattle, feral cats, feral dogs), wildlife which are to be game (e.g. mallard duck, black swan), partially protected or are injurious. It authorises that certain unprotected wildlife may be kept and bred in captivity even if they are declared pests under a pest management plan.
- Many of Council's parks are held and classified under the **Reserves Act** 1977. Similarly, Crown land within the region is also held under this act. The Minister of Conservation may approve the introduction of biological control organisms into reserves vested in the Crown, or in any other reserve if requested by the administering body of that reserve, in order to control wild animals or pest animals or plants. This requirement is subject to the provisions of any other Act applicable to the import, genetic modification, or use of organism(s) concerned, the general policy for the implementation of the Reserves Act, strategy or plan, or other plan approved for the reserve (s51A of the Reserves Act).

2.1.5 Ture ā-Motu mō te Tohi me te Kimi Haere 2012 / National Animal Identification and Tracing Act 2012

The National Animal Identification and Tracing Act 2012 (NAITA) 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 NAIT requirements, all persons in charge of deer must ensure all deer are tagged with approved ear tags, registered, and records kept of the animals' movements. The NAIT requirements are used as a component of defining 'feral' (as opposed to 'owned') deer for the purposes of this RPMP.

2.1.6 Ture Papa Atawhai 1987 me ngā Waeture Tauranga Ika / Conservation Act 1987 and Fisheries Regulations

There is a complicated regulatory framework around freshwater pest fish in New Zealand, involving the interaction of a number of Acts, Regulations and Rules. These should be considered alongside the provisions of this RPMP. The Conservation Act 1987 regulates freshwater fisheries by restricting and prohibiting fishing in certain circumstances, and restricting the transfer or release of live aquatic life into freshwater bodies. The Freshwater Fisheries Regulations 1983 contain several relevant provisions, including defining perch, tench and rudd as sports fish which may only be taken from freshwater under a licence issued by Fish and Game. See also individual species entries in Table 2 for species-specific details. Auckland Council will continue to consult with Fish and Game on the management of these species.

2.1.7 Ture o te Ora Kararehe / Animal Welfare Act 1999

It is an offence under the Animal Welfare Act 1999 to kill any animal such that it suffers unreasonable or unnecessary pain or distress. Although lethal control methods are unavoidable in many pest management situations, it is important to remember that these are sentient beings and that control methods must always comply with animal welfare obligations. The Animal Welfare Act restricts the types of traps and devices that may be used to control animals, and sets minimum requirements for checking of some forms of traps.

2.1.8 Ture ā-Rohe Tuku Iho mō te Ika Whenua o Waitākere 2008 / Waitākere Ranges Heritage Area Act 2008

The Waitākere Ranges Heritage Area Act 2008 (WRHAA) relates to the parkland and adjacent private land in the Te Wao Nui a Tiriwa / Waitākere Ranges. The purpose of the Act is to “recognise the national, regional, and local significance of the Waitākere Ranges Heritage Area”; and “to promote the protection and enhancement of its heritage features for present and future generations.”

The WRHAA identifies 14 heritage features, and healthy, functioning ecosystems are integral to most of these. The WRHAA requires that particular regard be given to the purpose and objectives of the Act when acting under Part 5 of the Biosecurity Act 1993 (including the preparation of RPMPs). See section 4.2.6 for a summary of how this plan gives effect to the WRHAA.

The Waitākere Ranges Local Board takes an active role in the implementation of the WRHAA, including through the provisions of financial and logistical support to the community to undertake biosecurity actions, and the oversight of the development and response to monitoring in the Te Wao Nui a Tiriwa / Waitākere Ranges.

2.1.9 Ture Papa Rēhia mō Tīkapa Moana 2000 / Hauraki Gulf Marine Park Act 2000

The Hauraki Gulf Marine Park Act (HGMPA) relates to the entire Tīkapa Moana / Hauraki Gulf, its islands and its catchments. The HGMPA recognises the national significance of the Gulf and establishes the Hauraki Gulf Marine Park. The purpose of the HGMPA includes to "integrate the management of the natural, historic, and physical resources of the Tīkapa Moana / Hauraki Gulf, its islands, and catchments", "recognis[ing] the historic, traditional, cultural, and spiritual relationship of the tangata whenua with the Tīkapa Moana / Hauraki Gulf and its islands" and to "establish objectives for the management of the Tīkapa Moana / Hauraki Gulf, its islands, and catchments".

The HGMPA's purpose and its management objectives are broad, and collectively promote the interrelationship between the Hauraki Gulf and its islands, and the ability of that interrelationship to sustain the Hauraki Gulf environment's life supporting capacity, as a matter of national significance.

All persons exercising power or carrying out functions for the Hauraki Gulf under any Act specified in Schedule 1 of the HGMPA (which includes the Biosecurity Act) must have particular regard to the national significance of the Hauraki Gulf and its management objectives (s13 of the HGMPA).

See section 4.2.1 and 0 for programmes in this plan applying to the Tīkapa Moana / Hauraki Gulf and its islands.

Piri and Puri, the conservation dogs protecting Tīkapa Moana / Hauraki Gulf and its islands from pests.

2.2 Te tarāwaho ārai koiora i waho o te kaunihera / Biosecurity framework outside the Council

An effective biosecurity framework works both within a region and at a national level. Neighbouring regional pest plans and pathway management plans and national legislation, policy and initiatives influence this RPMP. As a result, an RPMP is an integral cog in a secure biosecurity framework to protect Aotearoa / New Zealand's environmental, economic, social and cultural values from pest threats.

As outlined in section 2.1.1 above and detailed below at section 2.2.1, central government is required to produce National Policy Direction to direct the development of pest management plans.

A number of other national instruments and measures have been developed to improve the effectiveness and efficiency of the biosecurity framework in Aotearoa / New Zealand including:

2.2.1 He Pūrongo Taki Ahunga Ārai Koiora 2025 / Biosecurity 2025 Direction Statement

In November 2016 the government outlined its vision for biosecurity management in Aotearoa / 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 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 their own biosecurity risk.
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 support all system participants in their roles.
5. "Tomorrow's skills and assets." A capable and sustainable workforce and world-class infrastructure provide the foundation for an effective system.

The programmes in this RPMP align well with these strategic directions, emphasising the shared responsibilities of pest management and the evidence basis for their inclusion. Preparation and implementation of an RPMP is core to taking regional leadership, combined with the broader operational and other programmes undertaken by the Council.

2.2.2 Te Marohi Taiao ā-Motu Aronga Whānui o te Mahi Ahumoana / Proposed National Environmental Standard for Marine Aquaculture

Fisheries New Zealand, in partnership with the Ministry for the Environment (MFE) and Department of Conservation (DOC) has proposed a National Environmental Standard for Marine Aquaculture (NES). NESs are regulations recommended by the Minister for the Environment under the RMA. The proposed NES has the objective of developing a more consistent and efficient regional planning framework for the management of existing marine aquaculture activities and on farm biosecurity management, while supporting sustainable aquaculture within environmental limits.

All marine farms would be required to prepare, implement and regularly update Biosecurity Management Plans by January 2025. The criteria for these plans would be specified in a separate document developed by MPI in close consultation with biosecurity experts and is likely to be based on the Ministry for Primary Industries' Aquaculture Biosecurity Handbook.

The proposed NES was released for public consultation between June and August 2017, public consultation closed on the 8 August 2017. At time of writing[2], the Ministers are yet to make a decision on the final shape of the NES, but a decision is expected within the coming months.

2.2.3 Konihi Kore 2050 / Predator Free 2050

This is an ambitious programme to rid Aotearoa / 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 Aotearoa / New Zealand entirely.
3. Demonstrate areas of more than 20,000 hectares can be predator free without the use of fences.
4. Complete removal of all introduced predators from offshore island nature reserves.

[2] *15 February 2019*

Auckland Council recognises and supports the opportunity for a step-change in pest management in Aotearoa / New Zealand, and has developed a complementary programme focusing on pests in Tāmaki Makaurau / Auckland (see “Pest Free Auckland” discussion below).

2.2.4 Hōtaka ā-Motu Mate Urutā Patu Kauri / Kauri dieback national programme

Effective management of kauri dieback required coordinated action among a wide range of agencies, organisations and individuals. Since 2007 Auckland Council has participated in a multi-agency national kauri dieback management programme in conjunction with tangata whenua, Ministry for Primary Industries, Department of Conservation and other regional councils. At the time of writing[3] this legacy programme is soon to be superseded by a national management agency to achieve enhanced alignment and effectiveness of kauri dieback management across kauri lands. The forthcoming national management agency will lead the implementation of a National Pest Management Plan for kauri dieback. Once the National Pest Management Plan is operative Auckland Council will assess whether a partial plan review under S100D of the Biosecurity Act is required to better align the Regional Pest Management Plan with the national plan.

In 2017, mana whenua Te Kawerau a maki declared a rāhui over the Waitākere Ranges to protect the ngahere from kauri dieback. Auckland Council subsequently closed parts of the parks network in recognition of this. Rāhui and park or track closures are also, at time of writing[4], supported by the use of Controlled Area Notices for parts of the Waitākere and Hunua Ranges, declared by the Ministry of Primary Industries under S131 of the Biosecurity Act. Council may continue the use of park closures with or without supporting Controlled Area Notices at these and other sites over the lifetime of the plan (see also section 4.2.7). Over the lifetime of the Regional Pest Management Plan Council will also continue to grow its partnerhip with mana whenua, including recognising and facilitating the use of rāhui and other customary management tools in the protection of kauri.

2.2.5 Te Whakaaetanga Tupu Orotā ā-Motu / National Pest Plant Accord

The National Pest Plant Accord (NPPA) is a cooperative agreement between central government (MPI and the Department of Conservation (DOC)), unitary and regional councils, and New Zealand Plant Producers Incorporated (an industry body of plant growers and their industry partners) to manage risks associated with the sale, distribution and propagation of specific, harmful pest plants. Although the NPPA itself is non-statutory, the approximately 207 plant species (some listings include sub-species) identified by the NPPA have been declared Unwanted Organisms under Part 9 of the Biosecurity Act, and thus banned from propagation, sale or other distribution. Several plants on the NPPA list are also addressed by management programmes in this RPMP, additional to the restrictions on their

[3] *20 December 2018*
[4] *1 February 2019*

spread derived from their status as Unwanted Organisms. Auckland Council will undertake monitoring and inspections of nurseries and online plant trade as part of implementing the Regional Pest Management Plan and National Pest Plant Accord.

2.2.6 Whakaaetanga Ārai Mōkai Orotā ā-Motu / 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 and regional councils, the Pet Industry Associations 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 as unwanted organisms, although to date no species have been regulated under the NPPBA. As with pest plants on the NPPBA, inclusion of high-risk pets on the NPPBA list does not preclude their inclusion in RPMP programmes. Auckland Council will undertake monitoring and inspections of petshops and online pet trade as part of implementing the Regional Pest Management Plan, and this may be extended to cover any additional species at such time as the NPPBA becomes operative.

2.2.7 Ngā tūraru oranga tūmatanui mai i ngā orotā / Public health risks from pests

The Auckland Regional Public Health Service (ARPHS) is responsible for preventing disease and improving the health of the people in our region. Council will work with ARPHS where appropriate, including notification of any emerging pest issues that may present a human health risk. While protection of biodiversity and primary production are key to most of the pest management programmes in this Regional Pest Management Plan, some pests are also managed for their potential public health impacts. Giant hogweed, rhus tree and phoenix palms are among the most notable of these, but management of several other environmental pests can also have public health benefits (e.g. rats, agapanthus).

2.2.8 Anga rerenga rauropi ā-Kāwana / Central government biodiversity framework

The New Zealand Biodiversity Strategy 2000 - 2020 (NZBS) was developed by central government to fulfil in part commitments made by Aotearoa / New Zealand under the United Nations Convention on Biological Diversity. The strategy seeks to maintain and restore a full range of remaining natural habitats, ecosystems and viable populations of indigenous species. The strategy identifies that invasive pests pose the greatest single threat to indigenous biodiversity, and includes goals, objectives and actions intended to address this threat. In 2016 a targeted update of the Strategy was released as the New Zealand Biodiversity Action Plan 2016-2020. This too places emphasis on pest management as a key biodiversity management tool, and promotes a significant increase in predator and weed

control across public and private land. The NZBS is currently under review, and is expected to continue this emphasis.

Central government is also currently developing a National Policy Statement on Indigenous Biodiversity which will guide management of indigenous biodiversity under the Resource Management Act (RMA). It too is expected to address the threat posed by pests to indigenous biodiversity, and will provide further direction on the management of this under the RMA (including the Auckland Unitary Plan).

Surveying for mudfish in a South Head wetland

2.3 Te tarāwaho ārai koiora a te kaunihera / The Council's biosecurity framework

The Regional Pest Management Plan sits within a biosecurity framework for the Tāmaki Makaurau / Auckland region and is supported by a number of complementary policies, plans and programmes.

2.3.1 Kaiarataki ā-Rohe / Regional leadership

In addition to the regulatory powers and responsibilities under the legislation described in section 2.1 of this report, the Auckland Council exercises its regional leadership role through its role as the largest landowner in Tāmaki Makaurau / Auckland, provisions in the Unitary Plan, and support to the community to undertake effective pest control on public and private land.

Auckland Council has a unique governance structure in Aotearoa / New Zealand, with a Mayor with specific executive powers, a Governing Body comprised of the Mayor and 20 ward Councillors and 21 Local Boards. The Governing Body together with the Local Boards collectively comprise Auckland Council.

The Governing Body's role includes the development of regional strategies and plans (including the RPMP), although it consults with the Local Boards and others in this role.

Outside of the RPMP, the Council has an extensive programme of non-regulatory initiatives to promote improved biosecurity outcomes and both the governing body and local boards have a significant role in the delivery of non-regulatory biosecurity initiatives. These include actions on regional parks (delivered and supported by the governing body) and local parks (delivered and supported by local boards). Both the governing body and the local boards support actions on private land through grants, in-kind resources and advice, support and collaboration with community conservation volunteers. Facilitating the development and release of biocontrol agents is another aspect of Council's regional leadership role.

The broader community also undertakes a significant level of pest management in Tāmaki Makaurau / Auckland independent of the Council.

Over the lifetime of the RPMP, Council will take a regional leadership role in developing and facilitating data sharing with and among community conservation organisations to enhance effective collaboration in pest management. As part of its regional leadership role, the Council supports national efforts to manage or exclude Unwanted Organisms in our region in partnership with MPI, on a cost recovery basis.

2.3.2 Tāmaki Makaurau Koiora Orotā Kore / Pest Free Auckland

Community groups/individuals and non-governmental organisations play an invaluable role in biosecurity for conservation. Supporting these people's efforts is a critical component of Council's regional leadership role in implementing the Regional Pest Management Plan, complementary to the regulatory components of the plan.

The Pest Free Auckland programme is a non-regulatory initiative to connect and amplify action by communities and land occupiers to protect and restore Tāmaki Makaurau / Auckland's wildlife and natural environment. This will be achieved by concurrently eradicating ecosystem-transforming pests and restoring and establishing habitat.

The initiative is linked with Predator Free New Zealand but will aim higher and target a broader suite of pest plants, animals and pathogens. A programme that is focused on just a subset of predators (i.e. rats, possums and mustelids) would not realise the benefits from also controlling herbivores (grazers and browsers), weeds and pathogens. A broader programme will also align with other central government conservation priorities, such as controlling weeds and kiwi recovery, and thus provide strategic alignment for community groups to access funding support.

The Pest Free Auckland programme has been established as a growing initiative, so that new projects can be added over time.

The programme comprises three key concurrent components:

1. **Eradicating pests and restoring ecosystems** by focusing on islands, peninsulas, open sanctuaries and corridors. This will include introduction of threatened species at suitable sites and adopting new pest control technologies (e.g. self-setting traps and remote-sensing monitoring).
2. **Education and community empowerment** to encourage community, land occupier and householder action and behaviour change to control pests (e.g. promoting responsible pet ownership and appropriate disposal of garden waste), create natural habitats and prevent environmental degradation.
3. **Monitoring and communication applications** to capture current activities and facilitate and motivate new activities. Mobile and social media applications will be used to capture, monitor, communicate and report the pest control activities to show success and population trends, based on key metrics e.g. bellbirds in backyards.

Pest Free Auckland will be facilitated by Auckland Council but delivered through partnerships with community groups, land occupiers and householders, mana whenua, schools, DOC and the private and philanthropic sectors.

2.3.3 Te Mahere a Tāmaki Makaurau / Auckland Plan 2050

The Auckland Plan 2050 is the Auckland Council's long term spatial and strategic document. It identifies environmental degradation as one of Tāmaki Makaurau / Auckland's key challenges. This challenge is addressed through six outcome areas, one of which - the Environment and Cultural Heritage Outcome - places emphasis on addressing poor environmental quality, including existing and future pests and the threat they pose to biodiversity, the economy and people. Provisions under this outcome area include a focus on encouraging Aucklanders to be stewards, protecting important natural areas and restoring environments as Tāmaki Makaurau / Auckland grows. The RPMP will contribute

to the achievement of the outcomes sought by the Auckland Plan by helping ensure effective management of pests in Tāmaki Makaurau / Auckland.

2.3.4 Te Mahere Pae-tawhiti / Long Term Plan 2018-2028

The 10-year budget (or Long-term Plan 2018-2028) sets out the priorities and funding for Council activities that are planned over a 10-year period, for the whole of Auckland Council. The Long-term Plan 2018-2028 introduced a natural environment targeted rate that provides funding for Council to deliver its implementation responsibilities in respect of this Regional Pest Management Plan and complementary biosecurity activities.

2.3.5 Rautaki Kanorau-koiora / Indigenous Biodiversity Strategy

The Auckland Council has an indigenous biodiversity strategy which has as its vision:

> "He taonga, ka whaihua ngā rerenga ke o te Ao Turoa i Tāmaki Makaurau
> Auckland's indigenous biodiversity is flourishing and treasured"

As is the case everywhere in Aotearoa / New Zealand, protection and enhancement of indigenous biodiversity in large part requires effective pest control. Many of the regulatory programmes in this RPMP are biodiversity focused, reflecting this pressing need.

Objectives in the Biodiversity Strategy are designed to cover most of the proactive work carried out by the Council to achieve biodiversity gains. The objectives emphasise the need to prioritise biodiversity actions so as to ensure resources are expended in the most effective and efficient way, to maximise biodiversity outcomes for ecosystems and species, and for the ecosystem services they provide to people. This underpins the Council's approach to the implementation of biodiversity programmes, by focusing actions undertaken and/or supported by the Council towards priority ecosystems and catchments. Over the last few years, the Council has undertaken a systematic identification and prioritisation process for all terrestrial ecosystem types within the region, and has targeted a number of important areas for active management – referred to as biodiversity focus areas. This in turn is reflected in the programmes in the RPMP (particularly in relation to site-led programmes) through the identification of strategic priority areas for comprehensive and integrated pest management responses in areas of high biodiversity value including the biodiversity focus areas (see Section 4 regarding strategic priority areas).

2.3.6 Kaupapa Here Ngaki Tarutaru / Weed Management Policy

Auckland Council's Weed Management Policy was adopted in 2013 and aims to guide weed management and vegetation control on land owned or administered by the Council and its council-controlled organisations (CCOs) (including the road corridor and waterways). Both Auckland Council and its CCOs are required to implement it.

This policy has eight objectives which guide weed management activities:

1. Take an integrated approach to weed management and vegetation control.
2. Ensure best practice in weed management and vegetation control.
3. Minimise agrichemical use.
4. Minimise non-target effects of agrichemical use.
5. Ensure public health and safety.
6. Protect and enhance the environment.
7. Empower the community to manage weeds under the policy.
8. Deliver weed management and vegetation control which is value for money.

To be considered a weed a plant needs to be growing in the wrong place and having an adverse effect on people, Māori cultural values, infrastructure, other built assets or the natural environment.

The Weed Management Policy's focus is largely on the method of delivery of weed control, including the control of vegetation that may not be a particular biosecurity threat (for example, species which may impact on infrastructure) but is considered a plant growing in the wrong place.

The RPMP, in contrast, is focused on the outcomes to be achieved through pest management programmes, in line with the purpose of RPMPs as outlined in Part 5 of the Biosecurity Act. It does not specify the methodology that is to be used to implement the pest management programmes outlined in the RPMP.

The Weed Management Policy is relevant to (and a directive of) the Auckland Council delivery of weed control programmes both under and outside of the RPMP.

2.3.7 Rerekētanga āhuarangi / Climate Change

Climate change is expected to exacerbate invasive species problems in a number of ways. Warmer temperatures will make Tāmaki Makaurau / Auckland suitable for sub-tropical species that currently find our region too cold to establish invasive populations. Increased disturbance from severe weather events may spread invasive species into and around the region, and damage intact native ecosystems making them easier to invade. Native species may also be less well matched to the changing conditions, and therefore find it harder to compete successfully with invasive species. Climate change will be an increasingly important factor in Tāmaki Makaurau / Auckland's biosecurity. In recognition of this, this RPMP takes a precautionary approach to species which are likely to be advantaged in the region as a result of climate change.

2.3.8 Rangahau / Research

Part of Auckland Council's regional leadership function includes the identification and facilitation of key research and development needed to support successful pest management in our region. The issues set out below highlight areas currently identified as high priority for further research, including because current methodologies do not pass the rigorous cost-benefit analysis required before species and programmes can be included in a RPMP.

This list is not exhaustive and Auckland Council may undertake or commission research on any other biosecurity issues throughout the life of the Plan as issues and opportunities arise.

Auckland Council supports a partnership approach in the delivery of this research (e.g. with the Biological Heritage National Science Challenge, Ministry of Business Innovation and Employment, Universities, Crown Research Institutes, industry bodies, mana whenua, 'citizen science' groups) interested in addressing the following issues.

Māori have a distinct knowledge base, mātauranga Māori (the body of knowledge originating from Māori ancestors, including Māori world views and perspective) and tikanga whakahaere (management approaches). Mātauranga Māori me ōna tikanga are recognised as important sources of knowledge which inform mana whenua biosecurity priorities and contribute to the management of pests within the region. Auckland Council supports partnerships with Māori to ensure that mātauranga Māori is included within biosecurity research initiatives, and will work with mana whenua and other Māori led initiatives (e.g. Te Tira Whakamātaki, Māori Biosecurity Network) to improve underpinning biosecurity knowledge and pest management in the region.

Research to deliver tools and deployment strategies needed to eliminate small mammal pests across natural and production systems in the region will be supported through collaborative biosecurity science initiatives such as New Zealand's Biological Heritage Science Challenge. The ability to cost-effectively keep rats, stoats and possums at zero density will be transformational for conservation of the region's biodiversity. The ultimate outcome is to enable scaling-up of current efforts to landscape-scale pest freedom. This project will accelerate the provision of improved tools, methodologies and strategies for mammal pest control in general and specifically enable community pest control initiatives including Pest Free Auckland to be successful. They will be socially acceptable, cost-effective and targeted next-generation technologies that have been proven at pilot scale to effectively eliminate small mammal pests. A step change in research innovation will be achieved by identifying and making the advances necessary to achieve our desired outcomes from within the fields of 'lures/repellents', 'surveillance/detection/monitoring', 'improved toxins and devices' and 'landscape-scale strategy'.

While the impacts of mammalian pests in Aotearoa / New Zealand are well understood, and exciting advances are being made in controlling small mammals, many other types of pests are much less well understood both in terms of their impacts and also methods for control.

Ship rat stealing a blackbird's egg
© Nga Manu Images

Lack of effective control tools severely hampers effective management of some of these species.

Auckland Council has identified the following areas as research priorities:

- Improved risk assessment tools, including through trait-based research for pest plants: because of the numerous exotic plant species present in the region, it will never be achievable to undertake species-specific research on every single species in order to inform risk assessments. In the development of this RPMP, the Council has identified several plant traits or impact types that are of concern, and for which additional research may assist in informing risk assessments of new species based on life-form or other traits. Pest plant research themes of particular interest to the Council include:
    - Potential risk of genetic impacts from exotic species with closely related native species in genera within which hybridisation has been recorded overseas, including, but not limited to: maiden hair fern (*Adiantum raddianum*), great bind

weed (*Calystegia sylvatica*), orache (*Atriplex prostrata*), *Persicaria* spp., Cretan brake (*Pteris cretica*), Tahitian pōhutukawa (*Metrosideros collina*).

- Climate resilience, including species that may be advantaged by warming climates, such as black eyed Susan (*Thunbergia alata*), camphor laurel (*Cinnamomum camphora*) and wild tamarind (*Leucaena leucocephala*), as well as species that form seedling banks which may facilitate disturbance-mediated invasion of native ecosystems, such as sycamore (*Acer pseudoplatanus*) and box elder (*Acer negundo*).
- Succulents and other life-forms that may pose risks to coastal ecosystems or other disturbance-prone native ecosystems in a Tāmaki Makaurau / Auckland context, for instance yucca (*Yucca gloriosa*), gazania (*Gazania rigens and G. linearis*), trailing African daisy (*Osteospermum fruticosum).*

- Freshwater invasive species, both plant and animal: freshwater invasive species in natural ecosystems often have complex food-web relationships and far-reaching impacts that are relatively poorly understood. Limited control tools are available for many of these species, and management interventions can have unexpected perverse outcomes due to the complex inter-relationships between species. Development of new management tools and refining understanding of impacts are both priorities to enable improved management of freshwater invasive species.
- Marine invasive species: as with freshwater invasions, impacts and control tools for marine invasive species are relatively poorly understood and developed when compared with terrestrial pests. Development of new management tools and refining understanding of impacts are both priorities to enable improved management of marine invasive species.
- Exotic birds and reptiles: management of exotic birds and reptiles is often constrained by a lack of management tools. Development of improved management tools is a priority to enable improved management of exotic bird and reptile invasions. Further research is also required to improve understanding of exotic bird and reptile impacts in natural ecosystems.
- Terrestrial invertebrates: due to their small, cryptic nature and high reproductive potential, it can be difficult to effectively manage invertebrate pests at a regional scale once they are too widely established for eradication to be feasible. Improved management tools are required to support industry groups to manage invertebrate pests such as guava moth. Research is also required to improve understanding of impacts of exotic invertebrates, such as the hadda beetle, giant willow aphid and dung beetles, on native species and natural ecosystems, and to develop tools for managing invertebrate pests to protect biodiversity.
- Pathogens: diseases such as kauri dieback disease and myrtle rust are an emerging issue in biosecurity due to their cryptic nature and ease of human-mediated transport. Successful management of pathogen pests requires research

into surveillance, detection, spread prevention and management tools, as well as improved understanding of impacts in natural ecosystems.

- Technological advances which materially assist in the scaleability of management interventions, particularly for pest plants, but also for other pests including mammals. For instance, technology such as drones may enable access to previously inaccessible infestations of pest plants on coastal cliffs, changing the cost and feasibility of pest plant management at important coastal sites. Similarly, telemetry, remote sensing and a range of other technologies have the potential to transform how Council delivers pest management over the lifetime of the plan.
- Future threats: in order to make appropriately prioritised management decisions, research is required to understand the potential risks associated with species that may not yet be established as pests in the Tāmaki Makaurau / Auckland region. This includes horizon scanning for emerging threats, incursion readiness planning for high risk species not yet present in the country, and facilitating development of tools and technologies to improve management outcomes.
- Social science is also increasingly recognised as having a crucial role to play in enabling pest management to achieve desired outcomes. It is critical that management agencies have a 'social licence to operate' from their communities – i.e. community support for priorities and tools – and also have a good understanding of the drivers and barriers to changing behaviour, as well as effective interventions, across all ethnic and social groups in society.

2.4 Ārai Koiora ā-Moana / Marine Biosecurity

The Tāmaki Makaurau / Auckland region has over 3000km of coastline, including three major harbours. Tāmaki Makaurau / Auckland is a high risk site for marine pest invasion due to the scale and complexity of recreational and commercial local, domestic and international vessel and craft movements and industries such as marine aquaculture. Introduced marine species spread to and within marine environments by way of biofouling on hulls and other equipment and in ballast, bilge or holding tank water. Tāmaki Makaurau / Auckland is a source of invasion to other regions from vessel movements departing Tāmaki Makaurau / Auckland, especially via the Ports of Auckland.

The introduction of more non-indigenous marine species to the region in the future is inevitable. Introduced marine species have the potential to cause significant ecological, social, cultural and economic impacts on our marine environment by: competing with native species for food, space and other resources, consuming native and aquaculture species, fouling natural habitat and artificial surfaces and structures, spreading disease, and releasing toxic compounds. More than 260 non-indigenous marine species have been identified in Aotearoa / New Zealand, of which, over 140 species are known to occur in the Tīkapa Moana / Hauraki Gulf alone (State of our Gulf 2014).

There are issues around the technical feasibility of controlling marine invasive species once an incursion has occurred. For effective biosecurity management, a thorough understanding of the pest's biology and its ability to adapt and reproduce in the region's environment is critical. Many marine invasive species produce thousands of offspring which can rapidly disperse across large areas via water currents. Application of toxins is also problematic in the marine environment, both due to pollution concerns and because it may be rapidly diluted and dispersed, thereby reducing efficacy. The marine environment poses access difficulties in comparison to land-based invasive species management. Because of these challenges, pathway management is by far the most impactful intervention point that can be targeted to protect the region from marine pests.

The Council's involvement in marine biosecurity work is a relatively recent development, partially driven by the increased clarity on the respective roles in central and local government (as articulated in the Pest Management Plan of Action 2011 and adopted by Cabinet and Regional Council Chief Executives as a matter of policy).

Broadly speaking, as with other aspects of pest management under the Biosecurity Act, central government is responsible for preventing the establishment of pests new to Aotearoa / New Zealand, including through developing eradication programmes if these pests are detected, and will be the lead agency in implementing these programmes. Additionally, if a pest is already in Aotearoa / New Zealand, but a national objective has been set to eradicate or contain that pest, this will also be the subject of a central government led response. Because effective management of marine pests requires an inter-regional (national) approach, central government has a particularly important leadership and coordination role in relation to marine pest species, even for species where the goal is spread prevention rather than eradication. Central government will also be the lead agency in relation to programmes relating to government owned or administered areas (such as marine reserves).

As part of managing the risk of new-to-New Zealand marine pests, central government is also responsible for the production of craft risk management standards (CRMS).The 2018 Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand specifies requirements for the management of biofouling risk associated with sea craft entering Aotearoa / New Zealand territorial waters from overseas.

The government has also released a proposed NES for Marine Aquaculture, which includes requirements for marine biosecurity plans on aquaculture farms (see section 2.2.2). A government Aquaculture Strategy is also forthcoming.

2.4.1 Whakahaere ara whāinga / Pathway management

Given the limitations on effective control of marine pests, and given their shared vectors of spread, the most effective and efficient way to address these pests is to prevent their establishment, and spread to new areas, by managing the 'pathways' which facilitate this establishment and spread.

Because of this, Auckland Council will focus on the management of the pathways, both within Tāmaki Makaurau / Auckland, and between Tāmaki Makaurau / Auckland and other regions.

As outlined in section 2.1.2, the Council has included provisions in its Unitary Plan relating to the level and cleaning of hull biofouling on boats and linking of biosecurity considerations to the provision and management of aquaculture, marinas and other activities. These rules cover the following sections of the RMA: discharge of contaminants to water ((Sections 15(1)(a) and 15B(1)(a)); deposit any substance in, on and under any foreshore or seabed ((Section12(1)(d)), and introduce or plant any marine pest in, on and under any foreshore or seabed (Sections 12(1)(f) and 12(3)(a)).

In addition, to provide for comprehensive management of marine pest pathways, council is advocating for inter-regional (national) marine pest pathway management, which may be in the form of an inter-regional marine pest pathway management plan. Because of this, Auckland Council has not set out to provide a full marine pest pathway management plan accompanying this Regional Pest Management Plan, but rather this RPMP identifies nine specific marine pest organisms and includes management of their pathways, both within Tāmaki Makaurau / Auckland, and between Tāmaki Makaurau / Auckland and other regions.

2.4.2 Tūhononga Ārai Koiora ā-Moana ki te Raki / Top of the North Marine Biosecurity Partnership

The Top of the North Marine Biosecurity Partnership ("Top of the North" or "TON") was established to increase collaboration and consistency between partners that have a statutory responsibility for preventing, reducing or eliminating adverse effects of marine pests that are present within the top of the North Island region.

The TON partnership currently consists of representatives from Northland Regional Council, Auckland Council, Waikato Regional Council, Bay of Plenty Toi Moana Regional Council, Gisborne District Council, Hawkes Bay Regional Council, DOC and MPI.

TON partners are in discussions around the development of an inter-regional marine pest pathway management plan, with the aim of having consistent rules across the four northernmost regions.

2.4.3 Sea Change – Tai Timu Tai Pari

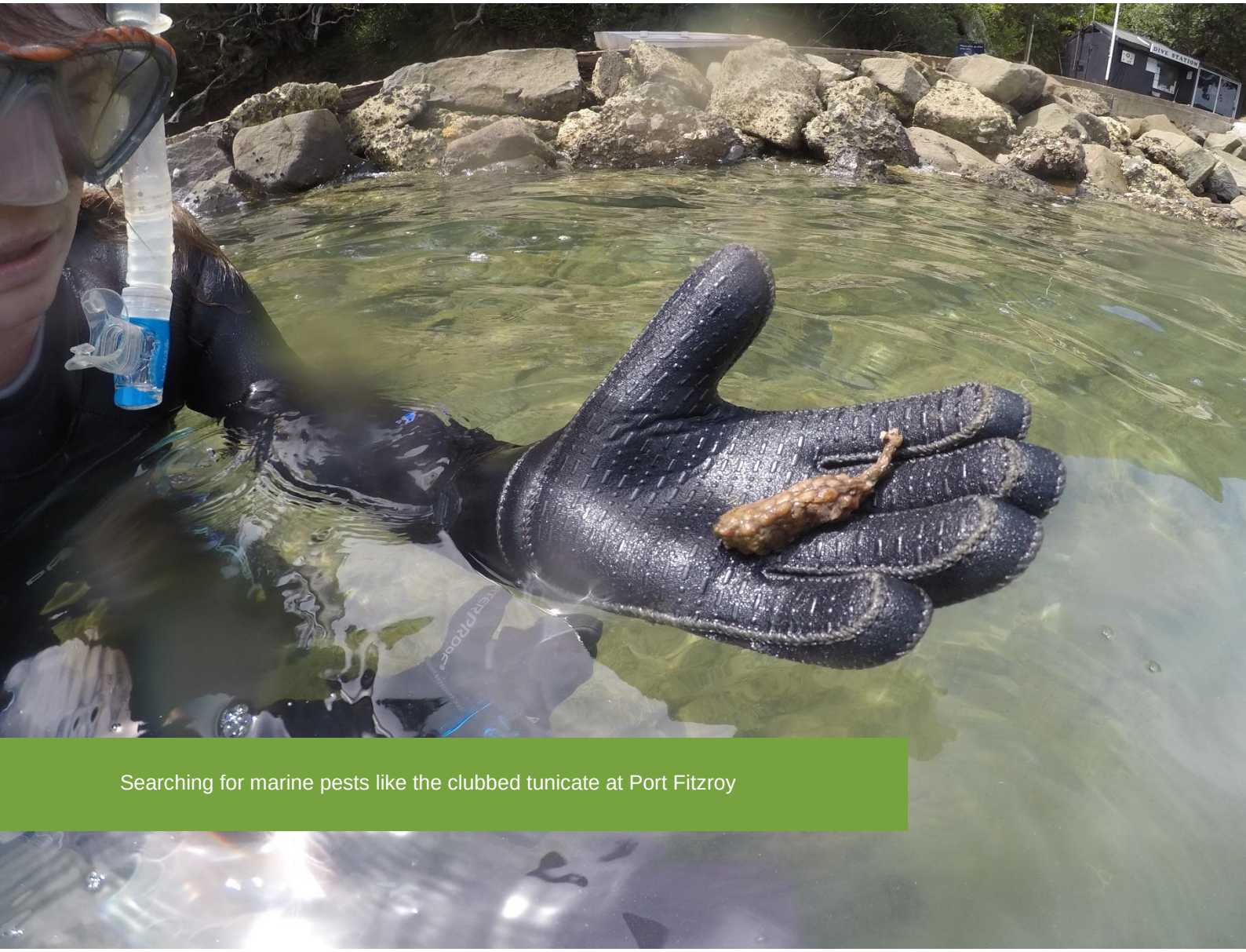
Sea Change – Tai Timu Tai Pari is a marine spatial plan for Tīkapa Moana o Hauraki / the Hauraki Gulf, developed as a collaborative effort between mana whenua, local and central government agencies, and local communities and interest groups.

The marine spatial plan identifies (amongst other things) that introduced marine species pose a serious threat to the marine ecosystems of the Tīkapa Moana o Hauraki / the Hauraki Gulf. In response to this threat, Sea Change – Tai Timu Tai Pari identifies the following

objectives for the management of marine pests in Tīkapa Moana o Hauraki / the Hauraki Gulf:

1. By 2020, develop pathway management plans and pest management plans to prevent the arrival and further spread of new and existing species and diseases, especially to high value areas.
2. By 2020, increase regional monitoring and surveillance efforts to be able to detect and respond quickly to new introduced species.
3. Where feasible, eradicate or control present species using available and evolving tools and methods.
4. Increase stewardship through an informed and engaged industry and public.

As set out below in section 2.4.2, a pathway plan for the upper North Island (including Auckland) is currently being scoped cooperatively by the Auckland Council, neighbouring councils, and central government. Further action by central government to progress the implementation of Sea Change – Tai Timu Tai Pari in conjunction with the Council and other stakeholders, is also expected, including potentially relating to biosecurity. It will be important to ensure that biosecurity actions in Tīkapa Moana o Hauraki / the Hauraki Gulf are integrated and coordinated to maximise the effectiveness of all responses.



Searching for marine pests like the clubbed tunicate at Port Fitzroy

2.5 Te hono ki ētahi atu Mahere Whakahaere Kaupapa Koiora Orotā / Relationship with other Pest Management Plans

An RPMP must not be inconsistent with:

- the NPD;
- any other pest management plan on the same organism;
- any pathway management plan;
- any regional policy statement or regional plan prepared under the RMA; or
- any regulations.

At time of writing[5], a National Pest Management Plan for kauri dieback is being developed. Once this national plan is operative Council will assess whether a partial plan review under S100D of the Biosecurity Act is required to better align the Regional Pest Management Plan with the national plan.

Auckland Council shares boundaries with the Northland and Waikato regions, and in the preparation of this plan staff have worked with both these regional councils on common issues on these shared boundaries. In particular, priority has been given to species such as rhamnus which has a relatively low incidence in both neighbouring regions, despite being much more prevalent in Tāmaki Makaurau / Auckland.

The landscape-scale possum programme in this RPMP presents an exciting opportunity to work towards possum eradication across the Northland peninsular, as the urbanised Tāmaki Makaurau / Auckland isthmus represents a geographical barrier to reinvasion of possums from south of the isthmus. This would be a significant step towards achieving Predator Free New Zealand. Auckland Council will work with Northland Regional Council, DOC, mana whenua, community groups and other stakeholders to progress this aspirational goal.

In November 2010 the boundary between the Auckland and Waikato regions was amended by the Local Government (Auckland Boundaries) Determination 2010. Consequently, 62 per cent of the Hunua Ranges Regional Park, all of the adjoining Waharau and Whakatiwai regional parks, and two of Auckland's most important municipal water supply dams – the Mangatangi and Mangatawhiri dams – are now located in the Waikato region. However, under the Local Government Act 2002, Auckland Council continues to own and manage the land and assets in the regional parks.

The Waikato Regional Pest Management Plan 2014-2024 (section 4.3) makes Auckland Council the management agency for that portion of the Hunua Ranges which falls within Waikato regional boundaries ('Hunua Ranges Pest Management Area', see Map 1 and Appendix 1). Rules in the Waikato RPMP for this area are consistent with those in the legacy Auckland Regional Pest Management Strategy 2007-2012 for possums, and feral deer,

[5] *1 February 2019*

goats and pigs. Waikato Regional Council rates collected within this area are provided to Auckland Council under a funding agreement between the two councils.

2.6 He Hononga ki te Ahunga o te Kaupapa Here ā-Motu / Relationship with the National Policy Direction

The National Policy Direction (NPD) came into force on 24 September 2015. The stated purpose of the NPD is to ensure that activities under Part 5 of the Biosecurity Act provide the best use of available resources for Aotearoa / New Zealand's best interests, and align with each other (when necessary), to contribute to the achievement of Part 5.

The table below sets out the NPD requirements and the steps taken to comply with them.

Table 1 National Policy Direction requirements and the steps taken to comply with them.

NPD requirements	Steps taken to comply
Programme is described	Checked that the types of programmes (described in section 6.1 of the Proposal) comply with clause 5 of the NPD.
Objectives are set	Checked that the contents of section 7 of the Proposal comply with clause 6 of the NPD.
Benefits and costs are analysed	Analysed the costs and benefits (see clause 6 of the NPD). That analysis is in the Cost Benefit Analysis that accompanied the Proposal.
Funding rationale is noted	Checked the funding rationale described in section 10 of the Proposal has been developed in line with clause 7 of the NPD.
Good neighbour rules (GNRs) are described	GNRs have been developed in line with clause 8 of the NPD. Details of the costs of compliance are set out in the Cost Benefit Analysis.

2.7 Hononga ki a ngāi Māori / Relationship with Māori

Ko te whai wāhi o ngāi Māori ki te ārai koiora he wāhanga nui tonu o te kawe i te mana kaitiakitanga. He wāhi hiranga tonu e kawea ana e ngāi Māori e pā ana ki te whakahaere kaupapa koiora orotā mā roto mai i ōna pānga mahi ōhanga matua e hāngai ana ki tōna whai pānga whenua, kainoho whenua rānei. Ko tētahi o ngā tikanga o te Mahere Marohi ā-Rohe Whakahaere Kaupapa Koiora Orotā (RPMP) i raro i te Ture Ārai Koiora he tiaki i te herenga i waenga i a ngāi Māori me ōna whenua tuku iho, wai, wāhi noa, wāhi tapu me ana taonga, te tiaki hoki i aua āhuatanga i ngā kaikino a te mate orotā. Ko tā te whakahaere kaupapa koiora orotā, he tiaki wāhi tapu me ngā taonga, whakaora ake i te mauri o te whenua, me te wai māori, e piki ai te oranga o aua hapori ake. Ko te whaihua o ngā

whakahaere kaupapa koiora orotā, he horanga whānui te āhua me tōna whakatairanga i te hononga i waenga i te iwi me te taiao. E hua ai ēnei painga ki te rohe, me mahi tahi rawa o te katoa. Ahakoa he rahi ngā iwi me ngā rōpū e mahi tahi ana mai i roto me waho o te rohe o Tāmaki Makaurau, he aro kore te orotā ki te rohenga whenua. E aronui ana te Kaunihera o Tāmaki Makaurau ki te mahi tahi me ngā mana whenua, te Tari o te Papa Atawhai me ētahi atu rōpū ki te whakarahi ake i ngā mahi whakahaere kaupapa koiora orotā māwhiti noa i ngā rohenga paewhenua.

Ahakoa kāhore te RPMP i te āta tohu tikanga hei whakahaere kaupapa, ka mahi tahi te kaunihera me ngā mana whenua ki te kimi wāhi e taea ai te whakapiki i te āheitia me te whakarite i te mahere. I ētahi wāhi ka taea e ngā mana whenua me te kaunihera te mahi tahi ki te whakahaere kaupapa koiora orotā i raro i te mana ā-hoa tūturu, noho kaiwhakahaere takirua rānei. He tauira o tēnei, ko te Mana Tūpuna Maunga o Tāmaki Mākaurau i whakatūria hei tiaki i ngā rārangi maunga o te rohe i muri i te whakataunga o ngā nawe o te Tiriti o Waitangi.

I raro i te Ture Kāwanatanga ā-Rohe kua herea te kaunihera ki te whakarite, whakaute hoki i ngā kawenga a te Karauna i raro i te Tiriti o Waitangi. Ka meinga hoki ngā kaunihera ki te tiaki me te whakapiki ake kia whai wāhi te Māori ki ngā tukanga whakatau kaupapa. I tūtakina ēnei kawenga me aua whakahau i te wā e whakaritea ana tēnei mahere, ka mau tonu hoki inā ka oti i a ia te whakamana.

Māori involvement in biosecurity is an important part of exercising kaitiakitanga. Māori also carry out significant pest management through their primary sector economic interests and as land owners and/or occupiers. 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. Pest management protects wāhi tapu and taonga, restores the mauri of whenua and wai māori, and enhances the well-being of local communities. Successful pest management is holistic in nature and recognises the interconnectedness of people and the environment. To achieve these outcomes for the rohe, all must work together. While there are many iwi and other organisations that contribute to pest management within and outside of Tāmaki Makaurau / Auckland, pests do not have boundaries. Auckland Council wants to work alongside mana whenua as well as the Department of Conservation (DOC) and other organisations to enhance pest management across organisational boundaries.

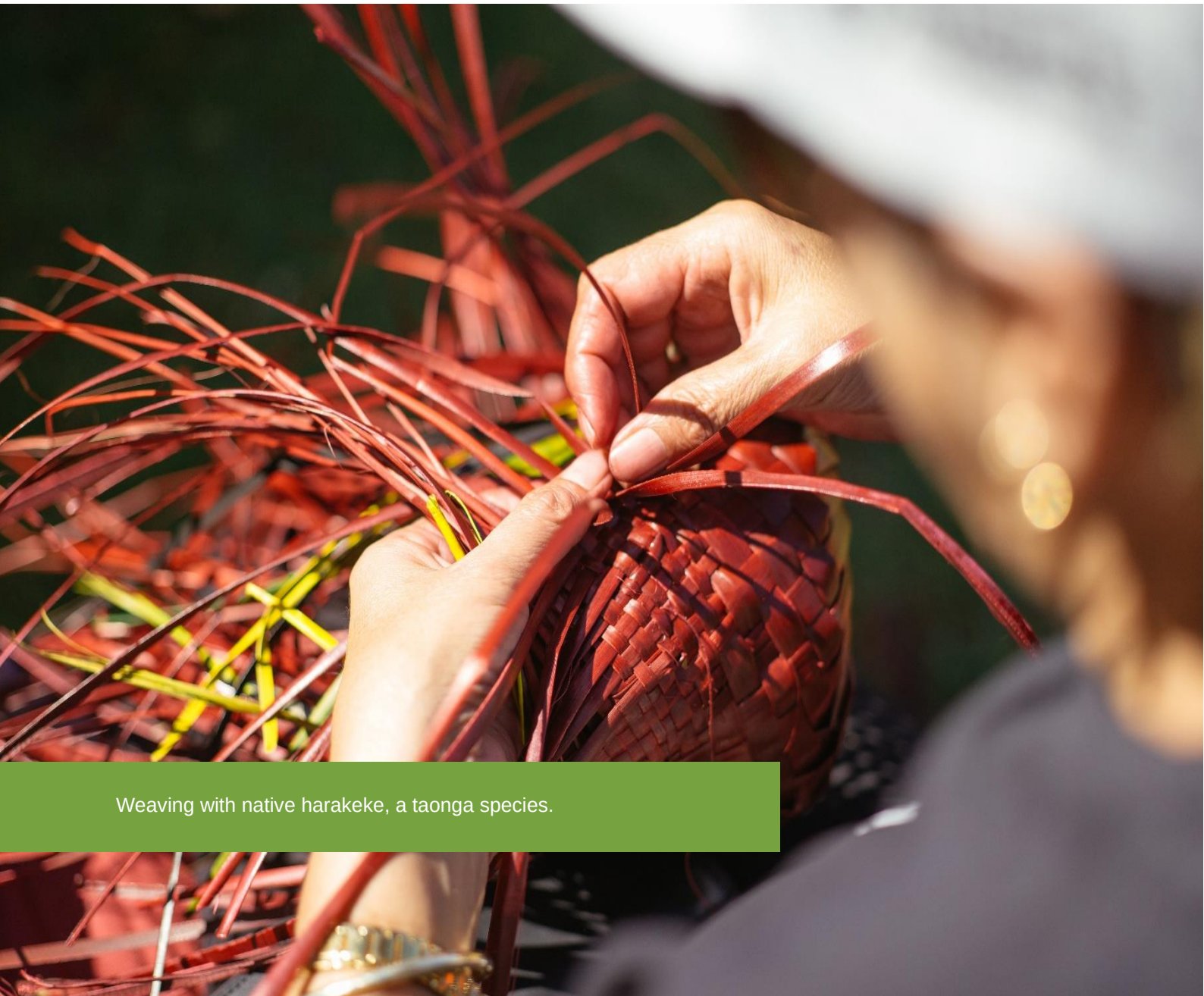
While the RPMP does not specify operational delivery methods, the Council will work with mana whenua to explore opportunities to partner with, collaborate with and empower mana whenua while implementing the plan. From this will come increased mana whenua capacity and capability in pest management, and economic development. Similarly, Council will learn and benefit from this collaboration, growing its capability in turn. In some situations mana whenua and the Council undertake pest management together as part of formal partnership and co-management agreements. An example of this is the Tūpuna Maunga o Tāmaki Makaurau Authority, which is set up to manage the region’s maunga (volcanic cones)

following te Tiriti o Waitangi / the Treaty of Waitangi settlements. Council also acknowledges the value of mātauranga Māori and customary management tools such as rāhui for managing pests.

The LGA requires the Council to recognise and respect the Crown's responsibilities under the Tiriti o Waitangi / Treaty of Waitangi. It also requires councils to maintain and improve opportunities for Māori to contribute to decision-making processes. These responsibilities and requirements were met while preparing this plan and will continue after it takes effect.

2.8 Whitiwhiti Kōrero / Consultation

Extensive consultation has been underway on the review of the RPMP since 2014. A detailed summary of consultation undertaken, responses received, the Council's response and rationale is included in the accompanying consultation summary report and submission analysis.



Weaving with native harakeke, a taonga species.

3 Kawenga me ngā herenga / Responsibilities and obligations

3.1 Te tari whakahaere / The management agency

Auckland Council is the management agency responsible for implementing the RPMP. Auckland Council is satisfied that it meets the requirements of s100 of the Biosecurity Act in that it:

- is accountable to those providing the funds to implement the RPMP, including Crown agencies, through the requirements of the Local Government Act 2002;
- is acceptable to those providing the funds to implement the RPMP subject to the RPMP's management provision; and
- has the capacity, competency and expertise to manage the RPMP.

How the Council will undertake its management responsibilities is set out in sections 6 and 7, and in the Council's operational plans, including the Weed Management Policy.

3.2 Whakaeatanga me te āta panga rīhiti / Compensation and disposal of receipts

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 by Council provide any net proceeds, a person will be paid disbursement in the manner noted under s100I of the Biosecurity Act.

3.3 Te hunga whai pānga / Affected parties

A number of agencies and individuals have roles and responsibilities for pest management. These are generally set out in the Biosecurity Act. In addition to the Council, some of the key parties who also play a part in the management of pests in Auckland are listed below. Their roles are briefly explained below:

- the public (including community conservation groups)
- individuals (including but not limited to landowners, occupiers and those who occupy the Coastal Marine Area)
- the Crown
- roading authorities
- rail corridor occupiers
- the nursery industry and the pet industry
- commercial transport operators in the Te Tīkapa Moana / Hauraki Gulf.

3.3.1 Te iwi tūmatanui / The public

Public awareness, behaviour, participation and support are fundamental to effective pest management. Increasing numbers of Aucklanders are actively involved in voluntary pest management – whether it's as individuals or members of community groups or non-governmental organisations, working on their own land or perhaps on public reserve land,

to protect ecological values or primary production. Some long-running community projects, such as Ark in the Park, Tāwharanui/Shakespear Open Sanctuary Supporters and various projects on offshore islands, have been rewarded by successful reintroductions of threatened species and flourishing ecosystems. As well as active pest management work, the public also plays an important role in pest management through day-to-day behaviours such as checking and cleaning gear before visiting a forest or island.

3.3.2 Ia tangata (hunga whai whenua/ kainoho rānei) / Individuals (landowners/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 (in relation to places that are not physically occupied)
- any agent, employee, or other person acting or apparently acting in the general management or control of the place.

Under the Biosecurity 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.

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, occupiers must report pests to the Council. They must never sell, propagate, distribute or keep pests.

An occupier cannot stop an authorised person from entering a place, at any reasonable time, to:

- find out whether pests are on the property
- manage pests
- ensure the occupier is complying with biosecurity law.

While the occupier may choose the methods they will use to control any pests, they must also comply with the requirements under other legislation (e.g. RMA and/or the Hazardous Substances and New Organisms Act 1996).

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

3.3.3 Tari kāwanatanga / Crown agencies

The Crown has an interest in protecting the national interest and ensuring the pest management system is equitable, efficient and achieves the best overall outcomes for Aotearoa / New Zealand and under te Tiriti o Waitangi / the Treaty of Waitangi and international treaties. The Crown is also a landowner and protects the public's interest in the land of the Crown, including land managed by DOC and LINZ.

3.3.4 Kauhanga Ikiiki / Transport corridors (road and rail)

As long, linear landscape features, transport corridors (road and rail) are widely recognised as facilitating pest spread. Transport corridors also present a number of particular management challenges, including operational safety constraints, as well as being very narrow and affected by numerous neighbouring properties.

While control of pest plants throughout the transport corridor network is clearly desirable, this plan uses the parks site-led programme (see sections 4.2.5 and 7.5) to prioritise control to parts of the network running through particularly sensitive areas. This also recognises that control will be most effective if all land occupiers in an area are undertaking coordinated control, rather than lack of control on the transport network undermining control on adjacent land, or vice versa. As land occupiers, transport corridor operators have responsibilities in respect of all land occupier rules throughout this plan. In addition, the parks programme sets rules specific to transport corridors for agapanthus and Formosa lily.

Road reserves include the land on which the formed road lies and the verge area that extends to adjacent property boundaries. The Biosecurity Act allows the option of making either roading authorities (NZ Transport Agency and district/city councils) or adjoining land occupiers responsible for pest management in road reserves (see s6(1) of the Biosecurity Act). This RPMP makes roading authorities responsible for pest management in road reserves.

The plan includes portions of road adjoining land the plan covers, as authorised by section 6, and for the purposes of the plan includes all or any of the portions of road bounded by:

a) the boundary of that land abutting that road; and

b) lines extended from the end of that portion of boundary to the middle line of the road; and

c) the middle line of the road connecting those extended lines

For unformed ("paper") roads the responsibility for control of pests under the plan lies with the land occupier who physically occupies the land.

Auckland Transport is the roading authority for local roads/ road reserves, and the New Zealand Transport Agency is the roading authority for State Highways. Auckland Transport is the rail authority for local rail corridors, and KiwiRail is the rail authority for the national rail network.

3.3.5 Te umanga tāpapa tupu me te umanga mōkaikai / The nursery industry and pet industry

The nursery and pet industries are subject to national approaches to minimise pest spread associated with their activities, being the National Pest Plant Accord (NPPA) and the National Pest Pet Biosecurity Accord (NPPBA) (see 2.2.5 and 2.2.6 for further details). These industries must never sell, propagate, or distribute species that are declared pests either as Unwanted Organisms in relation to the NPPA, NPPBA or as a pest in this RPMP.

3.3.6 Umanga kaikawekawe i Tīkapa Moana / Commercial transport operators in the Hauraki Gulf

Commercial transport operators have a role in reducing the risk of pest spread to Tīkapa Moana / Hauraki Gulf islands. This role, previously recognised through a voluntary Pest-Free Warrant system, is now introduced as a mandatory scheme through the RPMP.

Red-eared slider turtle, banned from sale in Tāmaki Makaurau / Auckland
© Gail Rothaham

4 He rāpopototanga o ngā hōtaka kei tēnei mahere ā-rohe whakahaere kaupapa koiora orotā / Summary of programmes in this RPMP

Much of this Regional Pest Management Plan is focused on giving effect to the Council's obligations to protect biodiversity in the region, articulated in the Indigenous Biodiversity Strategy (see also section 2.3.5).

Specifically the plan contributes to the following outcomes:

- A representative range of Auckland's indigenous ecosystems and sequences is conserved; and
- Indigenous threatened species are secured from regional extinction; and
- Maintenance or improvement of ecosystem services functions provided by indigenous species and ecosystems

This plan also manages pests that can affect primary production and other economic or cultural values, thereby contributing to other outcomes sought by Council, including those articulated in the Auckland Plan 2050 (see also section 2.3.3).

These biodiversity, economic and cultural outcomes are to be achieved through a complementary suite of regulatory and non-regulatory programmes. Some of these programmes, described below in section 4.2 and set out in section 7, work directly at priority places. Others protect these places and values by working at wider spatial scales. Some programmes also protect priority places indirectly by preventing future pest problems at a regional scale.

Each pest programme in this plan sets out objectives and intermediate outcomes, following the framework described in section 6.

4.1 Pikinga muinga koiora urutā / Pest infestation curve

Auckland Council uses the pest infestation curve to assist decision-making on pest management in both regulatory and non-regulatory contexts (see Figure 1). New or emergent pests with low numbers and limited distribution are at the beginning of the curve. Pest control at this stage often involves relatively low costs and high long-term benefits. For these pests, progressive containment or even eradication may be feasible, preventing or delaying them becoming the widespread problem pests of the future. This may be either at a regional level, or for isolated sub-regional areas, for instance particular islands. For widespread pests at the established stage of the curve, the costs of control can be high, and eradication is unlikely to be feasible for many species. The most notable exception to this is some mammals, for which control technologies are sufficiently advanced to enable eradication or suppression to very low levels over increasingly large areas. For most other widespread pests, control will be most effective if delivered as a site-led approach, in which the full suite of invasive species are managed at a given site, sufficient to protect the values of the site. This avoids one widespread pest simply being replaced by another, yielding no net reduction in impacts, and also avoids situations where pests are controlled at a rate that fails to keep pace with their rate of reproduction. In deciding which sites should be prioritised for management, and for which pest species, the relative values of different sites are an important consideration, along with the extent that these values are vulnerable to different

types of pests. Site-led approaches aligned to the region's areas of highest biodiversity value and defendable geography are a key feature of this RPMP.

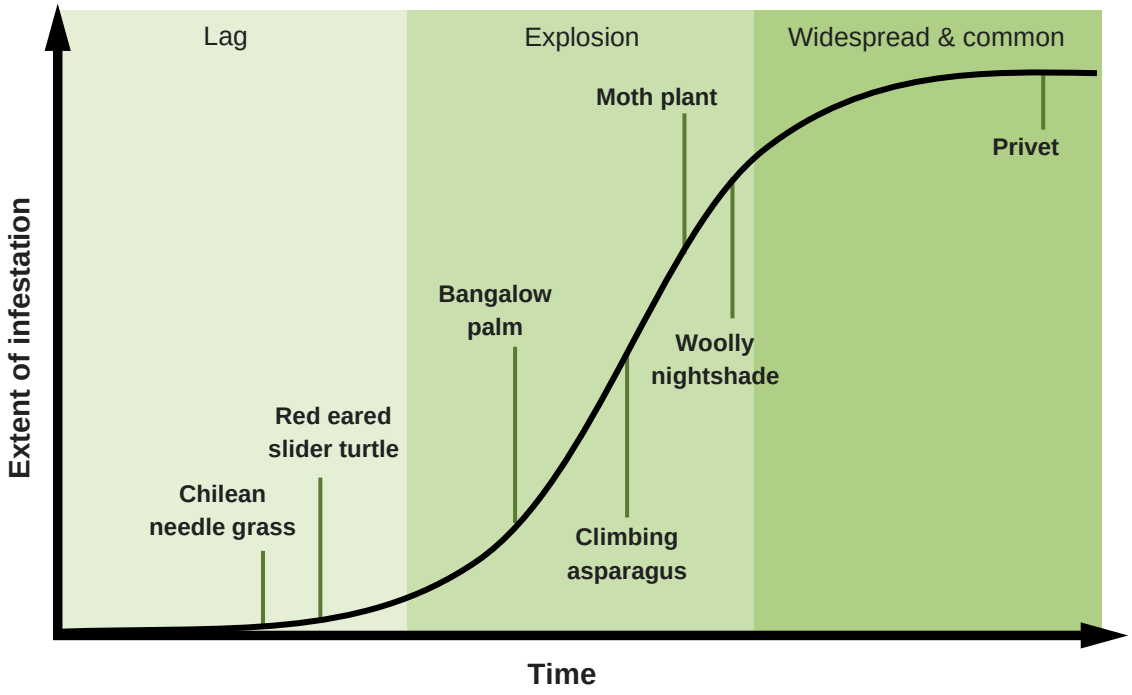


Figure 1 Pest infestation curve model for the Tāmaki Makaurau / Auckland region 2019.

4.2 Ngā Hōtaka / Programmes

4.2.1 Te Rohe Herenga Mana o Tīkapa Moana / Hauraki Gulf Controlled Area

Te Tīkapa Moana / the Hauraki Gulf contains a diverse array of ecosystems spread across 30 major island groups and over 400 discrete 'islands', including rock stacks, reefs and sand bars. These islands are home to one of the highest diversities of seabirds in the world. The tiny Ruapuke / Maria Island (1 ha) in the Noises group in the Te Tīkapa Moana / Hauraki Gulf was the site of Aotearoa / New Zealand's first island rodent eradication, with success confirmed in 1964. Since then, eradication technology has grown rapidly, so that now over half of the islands in the gulf are free of mammalian pests. These eradications have enabled the reintroduction of numerous threatened species to Te Tīkapa Moana / Hauraki Gulf islands. In addition to providing valuable contributions to national threatened species management, pest free islands in the gulf have become a major tourist attraction, with Rangitoto and Tiritiri Matangi receiving over 100,000 and 30,000 visitors per year respectively. With human visitors comes the risk of pests hitchhiking along for the ride.

Auckland Council implements both statutory and voluntary approaches to reducing the risk of those pests hitchhiking ashore.

In 1999 the then Auckland Regional Council declared the Hauraki Gulf and all its islands a Controlled Area under the Biosecurity Act.

Council runs the Treasure Islands awareness and behaviour change programme in the Te Tīkapa Moana / Hauraki Gulf in partnership with DOC, to encourage voluntary behaviour change by people living in or visiting the Hauraki Gulf. As part of Treasure Islands, commercial transport operators can voluntarily apply for and attain a “Pest-free Warrant” which certifies that steps have been taken by that operator to reduce the risk of accidentally transporting pests to islands. Over 40 operators have a Pest-free Warrant and, combined with extensive networks of on-islands traps and other biosecurity devices, this programme has been remarkably successful at protecting the islands of the gulf. However, on-going invasions are still a problem, especially for very small and easy to overlook species such as Argentine ants and plague skinks. To address these on-going invasions, this RPMP has extended the Pest-free Warrant to a regulatory approach, complemented by species-specific rules in some cases. Furthermore, the Pest-free Warrant will also be extended, on a voluntary basis, to other high risk businesses such as nurseries, building supply stores and quarries, to reduce the risk of their products accidentally containing stowaway pests when being moved to offshore islands.

In addition to heightening our efforts to keep pests off islands, this RPMP also prioritises control for a number of species on Te Tīikapa Moana / Hauraki Gulf islands in recognition of the high biodiversity values on many of these islands, as well as their relative isolation and defend-ability which makes it possible to successfully control species which might be too widespread on the mainland to effectively control. See section 7.1 for programmes.

4.2.2 Aotea / Great Barrier

Aotea / Great Barrier has retained some of the region’s highest biodiversity values, including being home to threatened species such as the tāiko / black petrel and pāteke / brown teal. Because of the island’s relative isolation, some destructive and invasive pests such as mustelids and possums never made it to Aotea / Great Barrier. It is a key regional priority to keep it this way. Unfortunately though, with human movement to the island comes the risk of stowaway pests; both Argentine ants and plague skinks have found their way to Aotea / Great Barrier in recent years. Goods, such as pot plants and landscape supplies, are particularly high risk.

Aotea / Great Barrier’s distance from the mainland has also slowed the arrival of pest plants such as moth plant and woolly nightshade and many other garden escapees that are increasingly common on the mainland. In many cases it is possible to remove populations of pest plants on the island before they get a serious foothold. Therefore, in recognition of Aotea / Great Barrier’s outstanding natural heritage and defendable geography, this RPMP gives special recognition to Aotea / Great Barrier and the surrounding smaller islands in this group, through a range of programmes targeting low incidence pest plants for control, as well as managing pathways to prevent new incursions.

While possums and mustelids are absent from Aotea / Great Barrier, rabbits, rats and cats pose a serious threat to native fauna and island infrastructure. This RPMP will manage these mammalian pests at high biodiversity value sites in the interim while the Council (including

the Great Barrier Local Board) works with mana whenua, DOC and the local community to progress conversations around ways to achieve a mammalian pest-free Aotea / Great Barrier in the future, taking into account diverse community perspectives and concerns. See section 7.2 for programmes.

4.2.3 Moutere o Kawau / Kawau Island

Kawau Island holds the only population of wallabies in the Tāmaki Makaurau / Auckland region. This poses a very real risk to the mainland, with wallabies having severe impacts on native forest as well as pastoral farming. Expanding populations of wallabies in regions south of Tāmaki Makaurau / Auckland also pose a risk to our region. This RPMP aims to eradicate wallabies from Kawau and maintain the wallaby-free status of the remainder of the region. However, eradication of wallabies, alone, from Kawau has the potential to have perverse outcomes, such as creating an advantage for competing pests such as rats and possums or pest plants. In recognition of this, this RPMP combines the wallaby eradication programme with Kawau eradication programmes for possums, rats and stoats. Again, the Pest-Free Warrant programme will be critical in preventing reinvasion following eradication. See section 7.3 for programmes.

4.2.4 Moutere o Waiheke / Waiheke Island

Waiheke is home to many native shorebirds, wetlands with threatened kōkopu, and other high biodiversity values that are threatened by pests. Waiheke has the potential to be home to new threatened species introductions, such as kiwi, if pests are removed. In addition, Waiheke is within swimming distance of other pest-free islands, and while pests such as rats and stoats remain on Waiheke this poses a source of on-going reinvasion of surrounding islands. The community-led initiative Te Korowai o Waiheke has a goal of eradicating rats and stoats from the island as part of a broader vision to protect and restore the island's native biodiversity. Corresponding rat and stoat eradication programmes (as well as Hauraki Gulf-wide pathway management programmes) in this RPMP support that community vision. See section 7.4 for programmes.

4.2.5 Whenua Papa Rēhia me ōna Rohe Hauropi Hiranga / Parkland with Significant Ecological Areas

Tāmaki Makaurau / Auckland is the weediest city in the country. Given the long list of existing and emerging pest plant species in the region, controlling a whole suite of pest plants at sites of high biodiversity value can be a more effective approach than targeting a smaller list of species for region-wide enforcement. Auckland has an extensive network of regional and local parks which include some of the region's most important areas of native vegetation (e.g. Te Wao Nui a Tiriwa me Kohukohunui / Waitākere and Hunua Ranges) as well as fenced sanctuaries (Tāwharanui and Shakespear) that have enabled extensive reintroductions of threatened species. Auckland Council is committed to "walking the talk", role-modelling best-practice pest management on Council lands to protect these special

areas for all Aucklanders, now and into the future. This RPMP will coordinate the efforts of the Council, transport corridor operators (such as NZTA, KiwiRail and Auckland Transport) and private land owners to ensure maximum biodiversity benefits are achieved through collective action to protect parkland containing Significant Ecological Areas (SEAs)[6]. While the plan provides for enforcement of pest plant rules in buffer areas, Council will implement firstly through systematic community engagement to facilitate voluntary behaviour change.

Te Wao Nui a Tiriwa me Kohukohunui / Waitākere and Hunua are also singled out for additional protection for some species (e.g. see section 7.7.2). For instance, feral deer are currently not established in either Te Wao Nui a Tiriwa / Waitākere or Kohukohunui / Hunua; maintaining the deer-free status of these two areas is the top priority of the regional deer programme. Similary the plan contains restrictions on goat farming specifically in these two key areas, to ensure protection of the ranges. Furthermore, Te Wao Nui a Tiriwa me Kohukohunui / the Waitākere and Hunua Ranges are also identified as key operational priorities within regional programmes such as possum progressive containment.

See section 7.5 for programmes.

Te Wao Nui a Tiriwa / the Waitākere Ranges

4.2.6 Te Wao Nui a Tiriwa / The Waitākere Ranges

Te Wao Nui a Tiriwa / the Waitākere Ranges contains particularly high value parkland (mainly regional, some local parkland), representing one of the largest tracts of forest ecosystems on the region's mainland. The national significance of Te Wao Nui a Tiriwa / the Waitākere Ranges is recognised by the Waitākere Ranges Heritage Area Act (WRHAA), as outlined in Section 2.1.8. However the Waitākere Ranges faces particular biosecurity challenges, due to the extensive network of human communities and roads interspersed within these precious ecosystems.

The RPMP gives effect to the WRHAA by placing particular priority on protecting this area from pests, both through rules relating specifically to Te Wao Nui a Tiriwa / the Waitākere Ranges and by signalling in the principal measures of achievement within programmes that apply across wider spatial scales that Te Wao Nui a Tiriwa / the Waitākere Ranges are a key operational priority. Programmes that provide an elevated level of protection to Te Wao Nui a Tiriwa / the Waitākere Ranges beyond that afforded across the region can be found in the following sections of the plan:

- Section 7.5.1.1 Feral pig Parkland with Significant Ecological Areas site-led programme
    - Feral pigs to be managed to below ecological damage threshold (zero density, if feasible) in Te Wao Nui a Tiriwa / Waitākere.
- Section 7.5.1.2 Mustelids (ferrets, stoats and weasels) parks site-led programme
    - Mustelids to be managed in or around Significant Ecological Areas on parkland to levels that enhance ecosystem function and resilience, and protect the values of the parkland. Operational priority given to Te Wao Nui a Tiriwa / Waitākere, provided kauri dieback spread risk can be managed adequately.
- Section 7.5.1.3 Rats parks site-led programme
    - Rats to be managed in or around Significant Ecological Areas on parkland to levels that enhance ecosystem function and resilience, and protect the values of the parkland. Operational priority given to Te Wao Nui a Tiriwa / Waitākere, provided kauri dieback spread risk can be managed adequately.
- Section 7.5.2 and 7.5.3 Pest plants on and around ecologically significant parkland
    - Te Wao Nui a Tiriwa / Waitākere Ranges parkland is among key sites prioritised for site-led pest plant control in parks and in surrounding buffer zones to protect the value of these ecosystems.
- Section 7.7.2.1 Feral deer progressive containment
    - Prioritises protecting the feral deer-free status of Te Wao Nui a Tiriwa / Waitākere Ranges. Includes restrictions on movement of deer into the Waitākere Ranges.
- Section 7.7.2.2 Feral goat progressive containment

    - Prioritises protecting the feral goat-free status of Te Wao Nui a Tiriwa / Waitākere Ranges. Introduces rules to restrict goat farming within Te Wao Nui a Tiriwa / Waitākere Ranges.
- Section 7.7.2.3 Possum progressive containment
    - Prioritises protection of Te Wao Nui a Tiriwa / Waitākere Ranges.
- Section 7.7.2.4 Sulphur crested cockatoo progressive containment
    - Primary focus of containment programme is the population established within Te Wao Nui a Tiriwa / Waitākere Ranges.
- Section 7.7.3 Sustained Control pest animals
    - Control may occur as part of integrated management of all key pressures at priority sites.
- Section 7.7.4.1 Unowned cats, site-led control
    - Management of unowned cats, along with other key pressures, at sites with threatened birds, reptiles or amphibians. May include sites within Te Wao Nui a Tiriwa / Waitākere Ranges such as Ark in the Park, and coastal shore bird and seabird habitats.
- Section 7.7.5.2 Kauri dieback sustained control
    - Te Wao Nui a Tiriwa / Waitākere Ranges is a key operational priority for prevention of further spread and impact of kauri dieback disease.

In addition to the specific statutory programmes listed above, section 2.3.2 highlights Auckland Council's extensive support for community conservation activity under the umbrella of Pest Free Auckland. Supporting groups active within Te Wao Nui a Tiriwa / Waitākere Ranges is a particular priority due to the outstanding natural values being protected there. This is also referenced in the 'Principal Measures of Achievement' for many of the statutory pest programmes contained within the RPMP; many pest programmes in sections 7.5 and 7.7 note that advice and support to community pest control will prioritise activity in and around biodiversity focus areas.

4.2.7 Urutā patu kauri / Kauri dieback

As an incurably fatal disease of kauri trees, kauri dieback disease poses a very real threat to the continued existence of kauri forests in the region. Human movement of soil is the key risk pathway for the spread of kauri dieback. As kauri dieback is not currently known from Kohukohunui / Hunua or Te Tīkapa Moana / Hauraki Gulf islands (with the exception of Aotea / Great Barrier), this RPMP prioritises the protection of these disease-free areas with the implementation of exclusion zones and increased hygiene measures (see sections 7.1.3 and 7.5.4). This will be supported by a Sustained Control programme seeking to minimise spread around the remainder of the region (see section 7.7.5.2). These provisions are complemented by those in the Unitary Plan, as set out in section 2.1.2, as well as Council's functions as a land manager, which includes ability to close portions of the park or track

network. Park closures (with or without accompanying Controlled Area Notices) may be undertaken by Council in support of rāhui by mana whenua. Following the implementation of the forthcoming National Pest Management Plan for kauri dieback Council will assess whether a partial plan review under S100D of the Biosecurity Act is required to better align the Regional Pest Management Plan with the national plan (see also Section 2.2.4. Improved understanding of disease distribution (including confidence of absence in non-symptomatic areas) will be critical in guiding management.

4.2.8 Te ārai koiora wai māori / Freshwater biosecurity

A range of freshwater pest plants and animals are already present in wai māori / freshwater ecosystems across the mainland of the region. However, freshwater ecosystems on Aotea / Great Barrier are free of all the main freshwater pests, and have retained extremely high biodiversity values. This RPMP therefore prioritises protection of Aotea / Great Barrier through the use of exclusion programmes for a range of freshwater pest plants and animals (see section 7.2).

On the mainland, although most waterbodies have some pest species present, there is evidence that impacts are synergistic – increasing with increasing number of freshwater pests present, culminating in water quality 'tipping' to algal dominated systems at highly invaded sites. Therefore there is still benefit in preventing further spread of freshwater pests on the mainland. Because humans are the main cause of freshwater pests spreading to new waterbodies, the RPMP addresses freshwater pest spread through an education and awareness pathway management approach, modelled on the successful Treasure Islands approach and borrowing from successful freshwater biosecurity programmes elsewhere in the country (see freshwater pest programmes in sections 7.7.3 and 7.7.10).

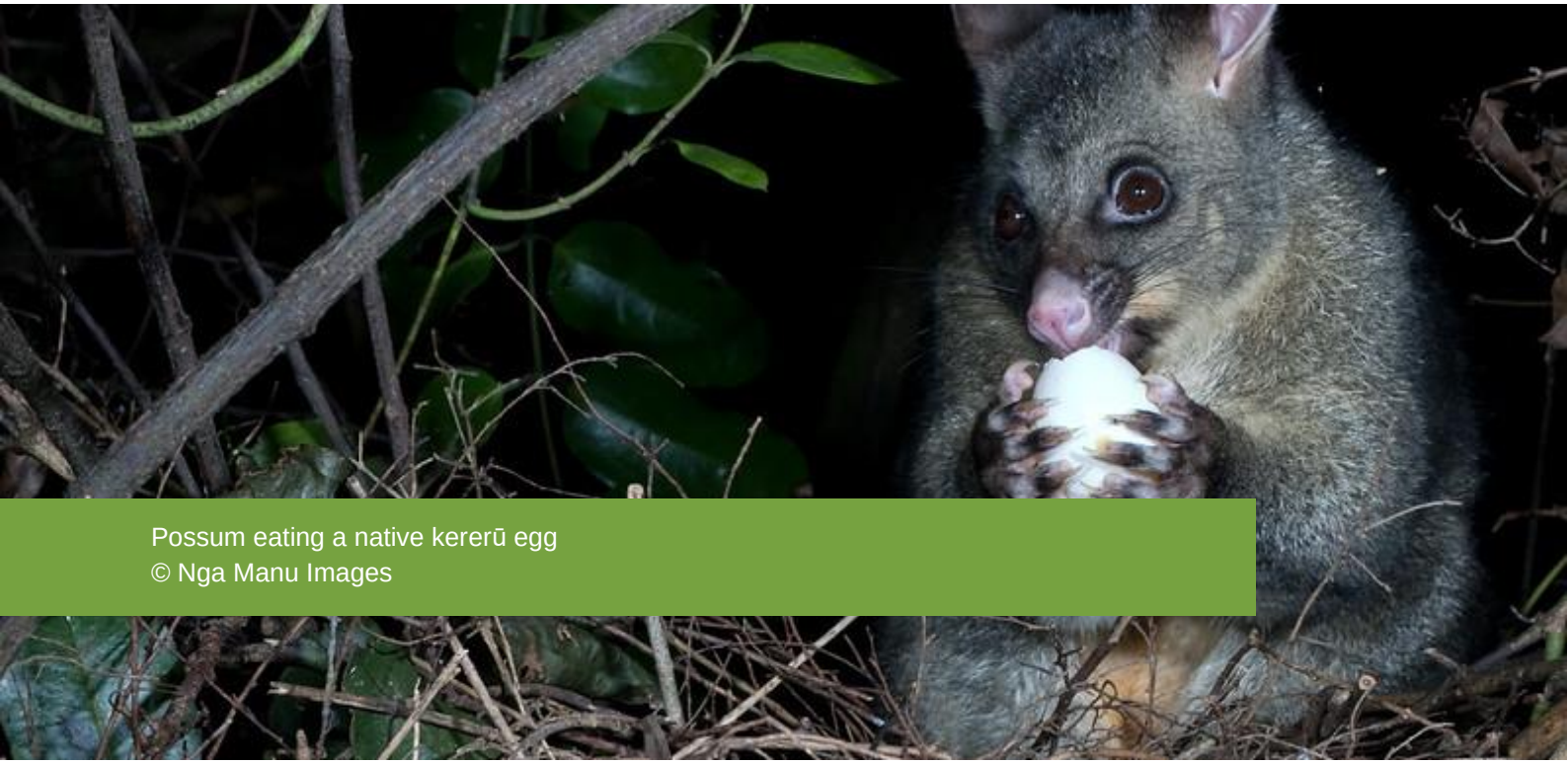
In addition, this RPMP recognises that some mainland sites retain high freshwater biodiversity values, but that these ecosystems are at imminent risk of collapse due to pests and other pressures. Therefore this RPMP implements a site-led approach to manage a suite of pest plants and animals at two top priority lakes, Tomarata and Rototoa, in conjunction with the local communities, mana whenua and NIWA (see section 7.6).

Both the site-led as well as pathway management elements of this plan require collaboration among many parties to ensure success. In implementation, Council will work with mana whenua, other organisations (such as other central and local government agencies, Fish and Game and research providers) as well as a diverse range of individuals and organisations that use or value freshwater (see also section 2.1.6 for national legislative context to freshwater management).

4.2.9 Paihamu / Possums

Possums have devastating impacts on native biodiversity, as well as posing substantial risks to primary productivity through transmission of bovine tuberculosis and eating pasture and horticultural crops. By controlling possums over large landscape-scale areas, it is possible to substantially reduce costs, both through economies of scale / purchasing power as well

as by reducing reinvasion from surrounding uncontrolled areas. Landscape-scale possum control elsewhere in the country has seen kōmako / bellbird returning to farming landscapes. This RPMP provides for increased possum control across much of rural mainland Tāmaki Makaurau / Auckland (see section 7.7.2.3).



Possum eating a native kererū egg
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4.2.10 Rohe katoa / Whole region

While many of the programmes in this RPMP are targeted to defendable geography and sites of highest biodiversity, some programmes are applied across all, or almost all, of the region. Key themes within these region-wide programmes are:

- Exclusion, eradication or progressive containment of 32 low incidence pests of potentially high impact on primary production or native ecosystems to prevent these species becoming serious pests in the future (see sections 7.7.6, 7.7.7, 7.7.8 and 7.7.9).
- Sustained control programmes aimed at reducing spread and impact of primary production pests (e.g. Bathurst bur, rabbits).
- Sustained control programmes to prevent the sale and distribution of pests (see sections 7.7.3 and 7.7.10). These programmes address the further spread of pest plants and animals through regulation of nursery and pet trade, and education and advice to encourage responsible pet ownership and gardening practices. These programmes also provide education, advice, and support to community groups involved in pest management activities, particularly prioritised tor those active around biodiversity focus areas or areas of defendable geography such as islands and peninsulas.