## 7.1 Te Rohe Āta Whakahaere o Tīkapa Moana / Hauraki Gulf Controlled Area

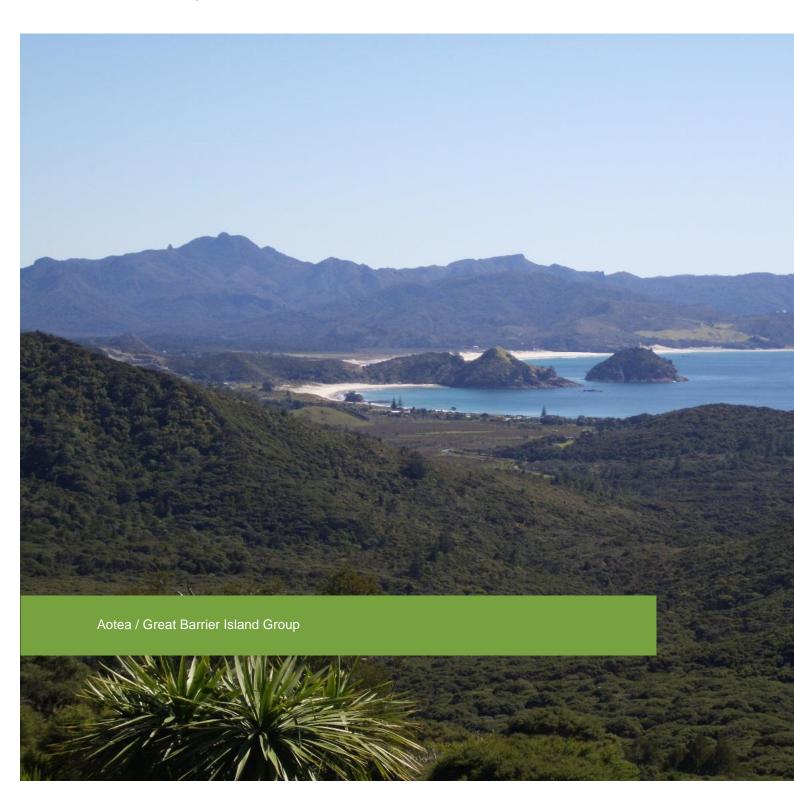
Ko Tīkapa Moana te kāinga o tētahi o ngā wāhi muia e te hia nei momo manu haumoana o te ao. Ko ōna moutere he wāhi e taea te tū āraitia, e māmā atu te muru rawa i ngā āhua momo koiora orotā i ērā i te tuawhenua nei. Ko Ruapuke (1 ha) o te kāhui motu Noises te motu tuatahi i Aotearoa kia murua i te kiore, i whakatūturutia tēnei i te tau 1964. Mai i taua wā, i tere piki ake ngā hangarau muru, ināianei neke atu i te haurua o ngā motu kua noho koiora orotā-kore kē. Nā ēnei murunga i āhei ai te whakahoki ake anō i ētahi o ngā momo i te noho wehi ki Tīkapa Moana.

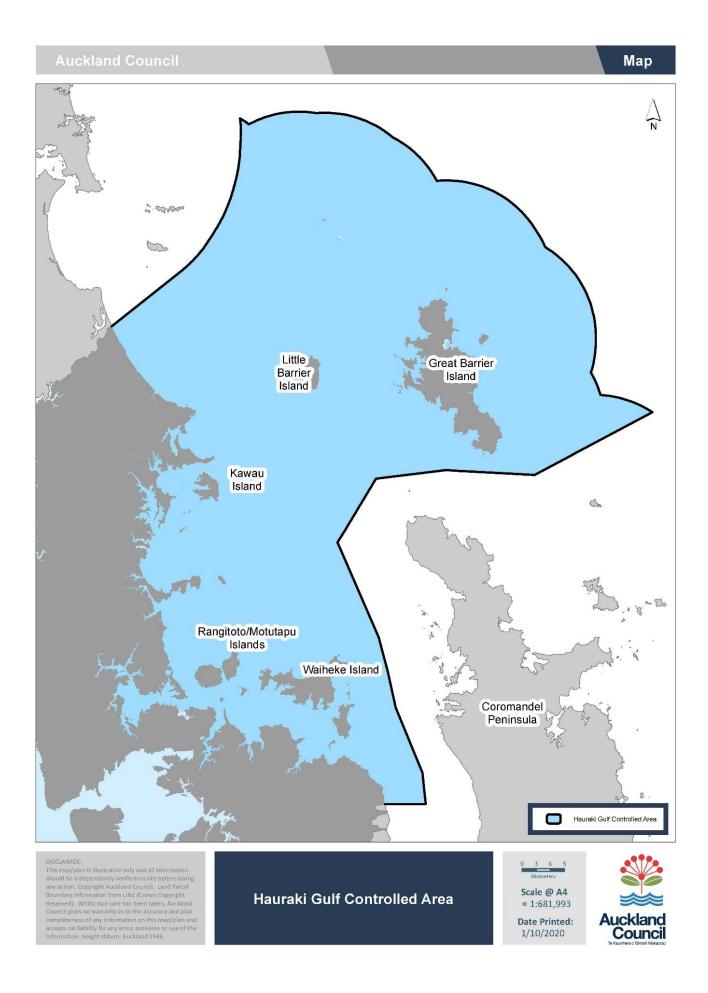
Ko tā ngā hōtaka e whai ake nei he tiaki i ngā tikanga hauropi whakahira me te noho ārai o te matawhenua o ngā moutere o Tīkapa Moana, mā roto atu i ngā whakaritenga e āhei ai te aukati i te hora tonu o ngā orotā ki ētahi atu moutere hōu (tae atu ki ngā ture mau Raihana Orotā-Kore o te hunga whai umanga kaikawekawe), āpiti hoki ko te mana o te kaunihera me ngā kaipupuri whenua ki te tiaki i ngā āhua orotā i ētahi wāhi hei ārai, hei whakaheke iho rānei i ngā raru.

The Hauraki Gulf is home to one of the highest diversities of seabirds in the world. Islands have the advantage of being geographically defendable, making it easier than on the mainland to completely remove some pest species. The tiny Ruapuke / Maria Island (1 ha) in the Noises group 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 such as Tiritiri Matangi, Rotoroa and Rangitoto-Motutapu. The subsequent success of these islands as sanctuaries is testament to the collaborative vision, financial investment and sustained hard work of many individuals and organisations across community groups, non-government orgnaisations and agencies such as Department of Conservation and Auckland Council.

The following programmes protect the high ecological values and strategically defendable geography of Te Tīkapa Moana / the Hauraki Gulf islands, through a combination of measures to prevent further spread of pests to new islands (with rules including Pest Free Warrants for commercial transport operators), along with control by Council or land occupiers to manage pests at certain sites to prevent or reduce impacts. Auckland Council is the management agency for the Hauraki Gulf Controlled Area. In addition to all rules and default powers provided under this Regional Pest Management Plan, species named anywhere in this Regional Pest Management Plan may also be subject to controls under the Hauraki Gulf Controlled Area are specified in the Controlled Area Notice. Boundaries of the Hauraki Gulf Controlled Area are shown in Map 2.

The subsequent sections set out programmes to eradicate, exclude or contain named pests from individual islands, namely **Error! Reference source not found.**, and **Error! Reference source not found.**. In addition to these, Council may undertake incursion responses for other low incidence species on islands as required over the lifetime of the plan.





Map 2. Area where Hauraki Gulf Controlled Area pest programmes apply.

### 7.1.1 Te noho wātea o te kararehe orotā / Exclusion pest animals

These exclusion pest animals are potential pest animals which are not known to be established in the Hauraki Gulf Controlled Area. These pest animals all have the potential to establish here and are capable of causing adverse effects to the environmental, economic, human health, social or cultural values of the Hauraki Gulf Controlled Area. It is a key regional priority to ensure these species do not establish on Te Tīkapa Moana / the Hauraki Gulf islands, to protect the values of those islands and past investment in island eradications. Council may, at its discretion, undertake incursion responses to species other than those listed in the following section.

### 7.1.1.1 Feral deer (Cervus, Axis, Dama, Odocoileus, Elaphurus spp.)

Feral deer are medium to large-sized ungulates. Red deer have reddish-brown coats and can reach 180kg. Fallow deer are much smaller and have a chestnut coloured coat. Heavy and selective deer browsing on native plants, particularly schefflera/patete, three-finger, horoeka/lancewood, and mouku/hen and chicken fern, can radically change forest structure and impact below-ground processes by altering the nature of litter inputs into the soil. Feral deer are also spill-over hosts and potential reservoirs of bovine TB.



**Objective:** Over the duration of the plan Auckland Council will exclude feral deer<sup>1</sup> (*Cervus, Axis, Dama, Odocoileus, Elaphurus* spp. including any hybrid) from the Hauraki Gulf Controlled Area to prevent adverse effects on the environment.

**Intermediate outcome:** "exclusion" which means to prevent the establishment of feral deer (*Cervus, Axis, Dama, Odocoileus, Elaphurus* spp. including any hybrid) in the Hauraki Gulf Controlled Area.

#### Rules:

7.1.1.1.1 No person shall move or distribute any deer into the Hauraki Gulf Controlled Area (as defined in Map 2).

The purpose of rule 7.1.1.1.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

<sup>&</sup>lt;sup>1</sup> A feral deer includes any deer that is not:

a) being kept or farmed in accordance with the Wild Animal Control Act 1977; and

b) identified in accordance with the National Animal Identification and Tracing Act 2012.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses Te Tīkapa Moana / the Hauraki Gulf islands, in partnership with the Department of Conservation where appropriate.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal.
Enforcement	Enforce conditions of transport within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.

## 7.1.2 Wāhi whai tupu orotā / Site-led animals

These site-led pest animals are present in the Hauraki Gulf Controlled Area, and have potential to cause serious impacts on the environmental, cultural and economic values of Te Tīkapa Moana / the Hauraki Gulf islands. The following programmes seek to minimise further spread of these pest animals to new islands, and in some cases also manage existing island populations to reduce their impacts on those islands.

### 7.1.2.1 Argentine ant (Linepithema humile)

Argentine ant workers are uniformly light brown insects, wingless and are roughly 2-3mm long. Queens are larger (10-12mm) and dark brown. They have a broad diet and impact on many invertebrate species through predation. competition and interference, and will also prey on hatchlings in nests. They feed extensively on honeydew produced by aphids and scale insects, and therefore protect these insects from predators. This can severely impact on the horticulture industry and will often kill fruit trees due to an increase in scale insects. Production losses in the poultry industry can be caused by Argentine ants killing hatchlings, and to the apiculture industry due to hive robbing. Argentine ants will often bite humans and can become major nuisances in homes and gardens. They can also interfere with pest plant biocontrol.



Richard Toft, Entecol

**Objective:** over the duration of the plan Auckland Council will manage Argentine ants (*Linepithema humile*) to protect values in the Hauraki Gulf Controlled Area to reduce adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

7.1.2.1.1 No person shall move or allow to be moved any Argentine ant to or within the Hauraki Gulf Controlled Area (as defined in Map 2).

- 7.1.2.1.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.1.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.1.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.1.2 and 7.1.2.1.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on Argentine ant-free islands, in partnership with the Department of Conservation where appropriate. Includes long-term projects to eradicate populations on Kawau and Aotea / Great Barrier island group.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly Argentine ant- free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of ants to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement. All commercial transport operators within the Hauraki Gulf to
	obtain and maintain Pest Free Warrant status. All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.2 Unowned cat

Cats are small-bodied carnivorous mammals (2-7kg as adults) with variable coat colours. Adults are active both day and night, switching activity patterns in response to opportunity, favouring small terrestrial mammals (rodents and rabbits) but prey-switching to take a wide variety of other taxa (birds, bats. reptiles. amphibians, invertebrates) according to their availability. Cat predation is one of the main threats to tūturiwhatu / New Zealand dotterels, and juvenile kiwi and burrowing seabirds such as tāiko / black petrel and tītī / Cook's petrels are also at risk. Cats can also facilitate disease and parasite transmission to native species, particularly Toxoplasma gondii, which is dependent on cats to complete its lifecycle. Fatal toxoplasmosis has been reported in tutumairekurai / Hector's and Maui's dolphins, terehu / bottle nose dolphins, kēkeno / NZ fur seals, kiwi, kererū/kukupā and kākā. However, cats are also Aotearoa / New Zealand's most popular companion animal, and Auckland Council recognises the need to balance wildlife protection with protection of companion animal values.



Manaaki Whenua Landcare Research

**Objective:** Over the duration of the plan Auckland Council will manage cats to protect values in places to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, and their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "protecting values in places" which means that cats, that are capable of causing damage to the Hauraki Gulf Controlled Area, are controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

 7.1.2.2.1 No person shall move or allow to be moved any unowned<sup>2</sup> cat to or among islands within the Hauraki Gulf Controlled Area (as defined in Map 2)

<sup>&</sup>lt;sup>2</sup> Unowned cat means:

a) Any cat which is not:

*i.* Microchipped, or otherwise identified with owner's name and address; and

Registered on the New Zealand Companion Animal Register <u>https://www.animalregister.co.nz/</u>; and

- 7.1.2.2.2 No person shall bring any cat within 200m of any cat-free island within the Hauraki Gulf Controlled Area.
- 7.1.2.2.3 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.2.4 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rules 7.1.2.2.1 and 7.1.2.2.2 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.2.3 and 7.1.2.2.4 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on cat-free islands, in partnership with the Department of Conservation where appropriate.
	Council may undertake control of unowned cats as part of integrated management of other pest threats to protect threatened species. Accordingly, Council may consider unowned cat control at sites meeting the follow criteria:
	<ul> <li>a. the site contains a resident or breeding or roosting population of any threatened native bird, reptile or amphibian species; and</li> </ul>
	b. the site is within a rural area; and
	c. where that site is:
	<ul><li>i. public land; or</li><li>ii. private land with consent of the private land occupier.</li></ul>
	Map 3 indicatively shows the extent of sites meeting these threatened species criteria based on current knowledge as at January 2019.

b) which is within any site that contains a resident or breeding or roosting population of any regionally or nationally threatened bird, reptile or amphibian, and is in a rural area.

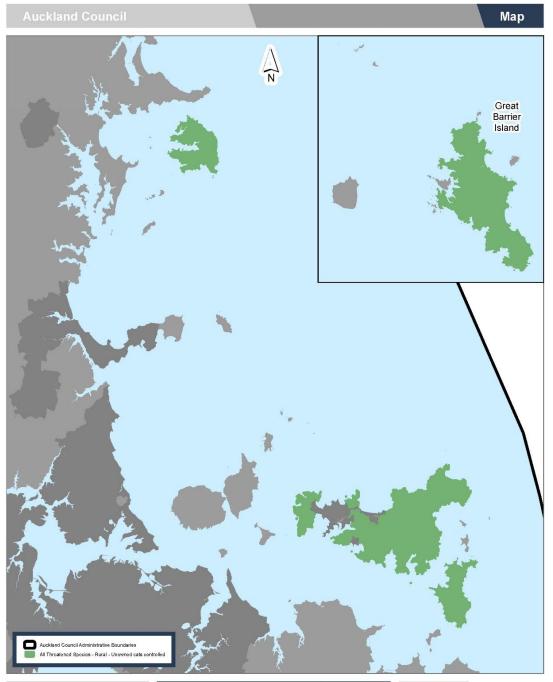
Note: based on current knowledge of species distributions at time of writing, sites that meet these criteria are shown in Map 3. Note also cat control will only be undertaken on public land or on private land with consent of land occupier (see principle measures of achievement overleaf).

Note: this programme does not prevent the continuing sale and distribution of cats within the region.

	Sites shown in Map 4 are intensively managed and of particular value to threatened species programmes. At these sites, Council may control any cat as a pest in accordance with the Biosecurity Act 1993, to prevent recovery programmes being undermined.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of cat-free islands, to determine the presence of new incursions and status of existing or historical sites. Undertake inspections, monitoring and surveillance of unowned cat populations in and around sites containing threatened species.
Enforcement	Enforce conditions of transport within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators, and that all cats being moved within the Hauraki Gulf are microchipped and remain at all times a distance of at least 200m from any cat-free island.
Education and advice	Provide information and advice on responsible pet ownership (particularly de-sexing, microchipping, registration on the Companion Animal Register and containment options). Advice will be prioritised to communities near threatened species populations or biodiversity focus areas to assist cat owners in these areas to minimise the impacts of their companion animals on nearby wildlife.
	Provide information on impacts and management of cats, and how to reduce risk of accidental introduction of cats to offshore pest-free islands.
	Notify communities near intended cat management at least 4 weeks prior to control of unowned cats.
	Provide advice and support to community groups undertaking cat management, with priority given to activity in or around biodiversity focus areas or threatened species populations.
Requirement to act	Cat owners to ensure owned cats are microchipped and registered if transporting cats to or among islands within Hauraki Gulf Controlled Area, and to ensure all cats are kept a distance of at least 200m away from any cat-free island at all times. All persons intending to move a building to or among Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the
	date of movement.

All commercial transport operators within the Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status.

All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.



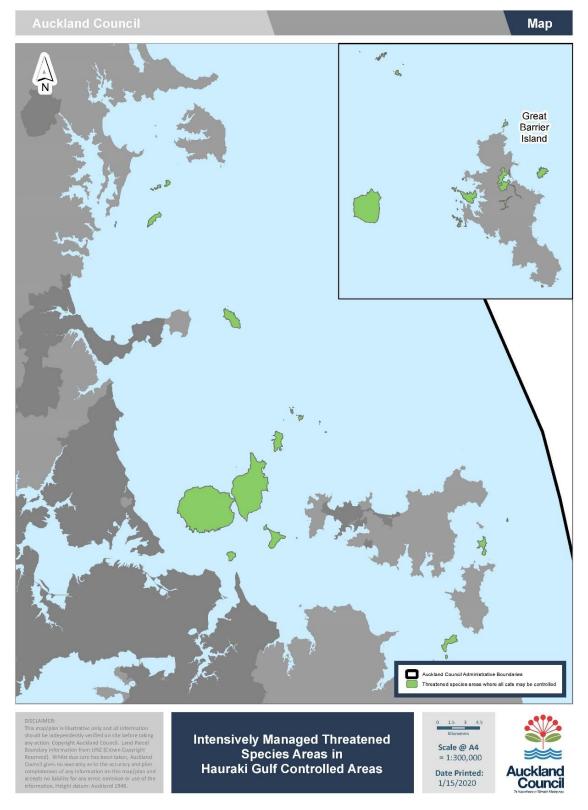
#### DISCLAIMER:

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Map 3 Indicative distribution of threatened species populations within rural areas in the Hauraki Gulf Controlled Area, based on current knowledge of species' distributions as of 2019. Unowned cats may be controlled in rural areas to protect threatened species on Council land or on private land with land occupier consent<sup>3</sup>.

<sup>&</sup>lt;sup>3</sup> Any sites where unowned cat control is actually planned to be carried out can be viewed at higher resolution online at <u>https://geomapspublic.aucklandcouncil.govt.nz/viewer/index.html</u>



Map 4 Intensively managed sites for threatened species protection. Any cat may be controlled at these sites<sup>4</sup>.

<sup>&</sup>lt;sup>4</sup> Any sites where cat control is actually planned to be carried out can be viewed at higher resolution online at <u>https://geomapspublic.aucklandcouncil.govt.nz/viewer/index.html</u>

#### 7.1.2.3 Darwin's ant (Doleromyrma darwiniana)

Darwin's ants are small omnivorous insects (2-5mm) with dark brown heads and light brown bodies, which give off a strong odour when crushed. Impacts are expected to be similar to Argentine ants. Their preference for sweet foods may lead to the invasion of vineyards and orchards, and facilitate high densities of scale insects and aphids by tending them for honeydew, further impacting plant health. They are also likely to compete strongly with other native species that feed on honeydew or nectar. Predation by Darwin's ants has been implicated as a factor in the failure of the boneseed leaf roller moth biocontrol agent, thereby indirectly facilitating the spread of the pest plant.



Richard Toft, Entocol

**Objective:** over the duration of the plan Auckland Council will manage Darwin's ants (*Doleromyrma darwiniana*) to protect values in place to reduce adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.3.1 No person shall move or allow to be moved any Darwin's ant to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.3.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.3.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.3.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.3.2 and 7.1.2.3.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on Darwin's ant-free islands, in partnership with the Department of Conservation where appropriate. Includes long-term projects to eradicate populations on Aotea / Great Barrier.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly Darwin's ant- free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of ants to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement.
	All commercial transport operators within the Hauraki Gulf to obtain and maintain Pest Free Warrant status.
	All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.4 Feral pig (Sus scrofa)

Feral pigs are large (sometimes over 300kg), black to brown, stoutly built mammals with large heads and well-developed canine teeth. They actively scavenge during the day and will overturn large areas of soil to consume soil invertebrates, especially earthworms. In invaded ecosystems, they prey on and compete with native species, alter nutrient cycles, damage vegetation and soil, and facilitate the spread of pest plants and plant diseases, including kauri dieback disease. They are of high risk to the primary production industry as vectors of bovine tuberculosis. International trading options may be reduced if the Aotearoa / New Zealand feral pig population became a reservoir for swine fever or foot and mouth disease. Feral pig attacks on humans are rare but could be potentially fatal.



Manaaki Whenua Landcare Research

**Objective:** over the duration of the plan Auckland Council will manage feral pigs<sup>5</sup> (*Sus scrofa*) to protect values in places to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is managed within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

7.1.2.4.1 No person shall move or allow to be moved any feral pig to or within the Hauraki Gulf Controlled Area (as defined in Map 2).

A breach of this rule is an offence under s154N(19) of the Biosecurity Act.

The purpose of this rule is to protect the values of the Hauraki Gulf Controlled Area.

<sup>&</sup>lt;sup>5</sup> A feral pig includes any pig that is not:

a) held behind effective fences or otherwise constrained; and

b) identified by ear tag

Service delivery (control)	Manage the pest animal in and around biodiversity focus areas within the Hauraki Gulf Controlled Area to levels that enhance ecosystem function and resilience, and protect the values of the Hauraki Gulf Controlled Area. Respond to incursions on pig-free islands, in partnership with the Department of Conservation where appropriate. See also section <b>Error! Reference source not found.</b> for eradication of feral pigs from Waiheke.
Monitoring and surveillance	Undertake inspections, monitoring and surveillance of key risk areas, particularly pig-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and ways to reduce biosecurity risks associated with keeping or hunting of pigs.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area.
Requirement to act	All persons in possession of pigs to comply with directions from Auckland Council biosecurity regarding adequate containment of pigs to prevent release from captivity, and ear tagging for identification.

#### 7.1.2.5 Hedgehog (Erinaceus europaeus)

Hedgehogs are small brown to grey, insectivorous mammals with spiny coats. They are voracious nocturnal predators, consuming invertebrates, ground nesting birds' eggs and small reptiles. They also vector a wide variety of human, bird, pet and agricultural diseases, including bovine TB.



Department of Conservation

**Objective:** over the duration of the plan Auckland Council will manage hedgehogs (Erinaceus europaeus) to protect values in place to reduce adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wahi tapu, and taonga.

Intermediate outcome: "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.5.1 No person shall move or allow to be moved any hedgehog to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.5.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.5.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.5.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.5.2 and 7.1.2.5.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on hedgehog-free islands, in partnership with the Department of Conservation where appropriate.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly hedgehog-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of hedgehogs to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement. All commercial transport operators within the Hauraki Gulf to obtain and maintain Pest Free Warrant status. All persons in possession of risk goods to comply with
	inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.6 Mouse (Mus musculus)

Mice are small grey-brown or black rodent omnivores which can be found in almost every habitat type. They directly impact native reptile and invertebrate populations through predation but also indirectly, as a food source facilitating other invasive predators. Excessive consumption of seeds by mice can greatly reduce native seedling recruitment and potentially modify plant communities in invaded ecosystems. Mice are also particularly damaging to cereal production and the food services industry, attacking and contaminating stored produce at all stages.



Nga Manu Images

**Objective:** over the duration of the plan Auckland Council will manage mice (*Mus musculus*) to protect values in places to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is managed within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.6.1 No person shall move or allow to be moved any mouse to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.6.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.6.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

The purpose of rule 7.1.2.6.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.6.2 and 7.1.2.6.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

Service delivery (control)	Undertake incursion responses on mouse-free islands, in partnership with the Department of Conservation where appropriate. Consider management of the pest animal in biodiversity focus areas within the Hauraki Gulf Controlled Area to levels that enhance ecosystem function and resilience, and protect the values of the Hauraki Gulf Controlled Area.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly mouse-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of mice to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement.
	All commercial transport operators within Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status.
	All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

## 7.1.2.7 Mustelids: Ferrets (*Mustela furo*), Stoats (*Mustela erminea*), and Weasels (*Mustela nivalis*)

Ferrets, stoats and weasels belong to a group of animals known as mustelids. Ferrets are the largest of the mustelids (600-1,300g) and can be distinguished by a dark 'mask' across their eyes. Stoats are smaller (200–350g) with orange-brown coats and a black tip at end of the tail. Weasels are the smallest (60–120g), with orange-brown coats and a uniformly brown tail.

Mustelids are bold generalist predators and can have devastating impacts on native birds, amphibians, reptiles, molluscs, and insects. Ferrets mostly threaten ground nesting birds while stoats and weasels have contributed to the decline and extinction of many forest birds, particularly cavity nesting species. Mustelids also vector a wide range of agricultural diseases including canine distemper and bovine tuberculosis (TB).



Stoat, Department of Conservation

**Objective:** over the duration of the plan Auckland Council will manage mustelids (*Mustela furo, Mustela erminea, Mustela nivalis*) to protect values in places to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is managed within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.7.1 No person shall move or allow to be moved any mustelid to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.7.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.7.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten

working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.7.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.7.2 and 7.1.2.7.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on mustelid-free islands, in partnership with the Department of Conservation where appropriate (see also Waiheke and Kawau eradications in sections Error! Reference source not found. and Error! Reference source not found.). Manage the pest animal in and around biodiversity focus areas within the Hauraki Gulf Controlled Area to levels that enhance ecosystem function and resilience, and protect the values of the Hauraki Gulf Controlled Area.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly mustelid-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of mustelids to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement. All commercial transport operators within the Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status.
	All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.8 Plague skink (Lampropholis delicata)

#### Also known as : rainbow skinks

Plague skinks are small brown lizards with an iridescent rainbow sheen to their scales visible under bright light. The skinks are generalist predators of a wide variety of invertebrates and are prevalent in suburban gardens, parks, disturbed sites, urban areas, open rocky land, farmland and scrub. They have higher reproductive rates and reach maturation faster than native skinks, reaching densities of 300-400 per 100m<sup>2</sup>. Such high population densities can result in plague skinks out-competing native reptiles, particularly native mokomoko kapa/ copper skinks.



**Objective:** over the duration of the plan Auckland Council will manage plague skinks (*Lampropholis delicata*) to protect values in place to reduce adverse effects on economic well-being, the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.8.1 No person shall move or allow to be moved any plague skink to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.8.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.8.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.8.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.8.2 and 7.1.2.8.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on plague skink-free islands, in partnership with the Department of Conservation where appropriate.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly plague skink- free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of skinks to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement.
	All commercial transport operators within the Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status.
	All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.9 Possum (Trichosurus vulpecula)

Possums are small marsupials with thick bushy tails, weighing between 1.4-6.4kg and can be grey, brown or black in colour. Possums will prey on eggs and chicks of various threatened birds, including kōkako, and compete for nest sites with hole-nesting birds, such as kiwi and parakeets. Heavy selective browsing by possums can suppress or eliminate preferred plants. This can alter the vegetation composition in invaded ecosystems and ultimately lead to the collapse of palatable canopy species, such as Northern rātā. Possums are also considered serious agricultural pests. They are vectors for bovine TB in cattle and compete directly with stock for pasture.



Nga Manu Images

**Objective:** over the duration of the plan Auckland Council will manage possums (*Trichosurus vulpecula*) to protect values in place to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is managed within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.9.1 No person shall move or allow to be moved any possum to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.9.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.9.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.9.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.9.2 and 7.1.2.9.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on possum-free islands, in partnership with the Department of Conservation where appropriate (see also section <u>7.3.1</u> for eradication programme on Kawau, representing the last remaining possum population within the Hauraki Gulf Controlled Area).
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly possum-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of possums to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement. All commercial transport operators within Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status. All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

#### 7.1.2.10 Rabbits (Oryctolagus cuniculus) and hares (Lepus europaeus)

Rabbits and hares are small terrestrial herbivorous mammals. Rabbits are about the size of a small domestic cat, often grey-brown in colour. Hares are larger than rabbits and have black tipped ears. They will heavily browse native seedlings and low-growing native plants in open habitats, such as sand dunes and grasslands, suppressing threatened species and altering vegetation composition. As prey species, they indirectly contribute to increased predation pressure on native species by supporting populations of introduced predators, including unowned cats and mustelids. In agricultural systems, excessive browsing can cause major damage to pastures, with 7-10 rabbits estimated to eat as much as one sheep.



Manaaki Whenua Landcare Research

**Objective:** over the duration of the plan Auckland Council will manage pest rabbits<sup>6</sup> (*Oryctolagus cuniculus*) and hares (*Lepus europaeus*) to protect values in place to reduce adverse effects on the environment, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.10.1 No person shall move or allow to be moved any pest rabbit or hare to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.10.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.10.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten

<sup>&</sup>lt;sup>6</sup> Pest rabbit means any rabbit within the Hauraki Gulf Controlled Area that is not:

i. One of the following breeds: New Zealand white, angora, Flemish giant, rex, chinchilla, Californian, Netherland dwarf, Dutch, tan, and silver fox; and

ii. Securely contained

working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.10.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.10.2 and 7.1.2.10.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on rabbit-free islands, in partnership with the Department of Conservation where appropriate. Manage the pest animal in and around biodiversity focus areas within the Hauraki Gulf Controlled Area to levels that enhance ecosystem function and resilience, and protect the values of the Hauraki Gulf Controlled Area.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly rabbit-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of rabbits to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement.
	All commercial transport operators within the Te Tīkapa Moana / the Hauraki Gulf to obtain and maintain Pest Free Warrant status.
	All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

## 7.1.2.11 Rats: ship rats (*Rattus rattus*), Norway rats (*Rattus norvegicus*), kiore<sup>7</sup> (*R. exulans*)

Rats are small black, grey or brown mammals with naked tails. Rats occupy a wide range of terrestrial habitats throughout Aotearoa / New Zealand. Rats are generalist omnivores; their diet includes seed predation and preving on small animals such as invertebrates, reptiles, amphibians and juvenile birds. They compete with native birds for nests and burrows, and have been implicated in the decline of a number of threatened birds, particularly seabirds. Excessive consumption of seeds by rats can greatly reduce native seedling recruitment and ultimately modify plant communities in invaded ecosystems. Rats are particularly damaging to cereal production, stored products and the food services industry, and are a potential disease vector to humans.



Manaaki Whenua Landcare Research

**Objective:** over the duration of the plan Auckland Council will manage rats (*Rattus rattus, Rattus norvegicus, Rattus exulans*) to protect values in places to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic wellbeing, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within the Hauraki Gulf Controlled Area to an extent that protects the values of that place.

#### **Rules:**

- 7.1.2.11.1 No person shall move or allow to be moved any rat to or within the Hauraki Gulf Controlled Area (as defined in Map 2).
- 7.1.2.11.2 All commercial transport operators moving goods or people to or among Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.2.11.3 All persons intending to move a building to or among islands in the Hauraki Gulf Controlled Area must notify Auckland Council at least ten

<sup>&</sup>lt;sup>7</sup> Council acknowledges that kiore are culturally significant for mana whenua and the need for operational engagement with mana whenua where relevant.

working days prior to movement, to arrange inspection and approval by Auckland Council.

The purpose of rule 7.1.2.11.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rules 7.1.2.11.2 and 7.1.2.11.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Undertake incursion responses on rat-free islands, in partnership with the Department of Conservation where appropriate (see also sections <b>Error! Reference source not</b> <b>found.</b> and <b>Error! Reference source not found.</b> for Kawau and Waiheke eradications). Manage the pest animal in and around biodiversity focus areas within the Hauraki Gulf Controlled Area to levels that enhance ecosystem function and resilience, and protect the values of the Hauraki Gulf Controlled Area.
Monitoring and surveillance	Undertake inspections of buildings and other risk goods to prevent movement of the pest animal. Undertake monitoring and surveillance of key risk areas, particularly rat-free islands, to determine the presence of new incursions and status of existing or historical sites.
Education and advice	Provide information and advice on identification, impacts and control of the pest animal, and how to reduce risk of accidental introduction of rats to offshore islands.
Enforcement	Enforce conditions of movement within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Requirement to act	All persons intending to move a building to or among Te Tīkapa Moana / the Hauraki Gulf islands to notify Auckland Council at least ten working days prior to intended date of movement, and to provide access for inspection within two working days prior to the date of movement. All persons in possession of risk goods to comply with inspections and hygiene measures when directed by Auckland Council.

## 7.1.3 Te noho wātea o te kitakita orotā / Exclusion pest pathogens

At the time of writing<sup>8</sup>, kauri dieback is not known from Hauraki Gulf islands, with the exception of Aotea / Great Barrier. There is no known cure for kauri dieback disease, and once present in a catchment it is difficult to contain spread of the disease. For these reasons, keeping kauri dieback off these defendable islands is a top regional priority. See also the Kohukohunui / Hunua exclusion zone (Section **Error! Reference source not found.**.) and Sustained Control programme for the remainder of the region (Section <u>7.7.5.2</u>).

#### 7.1.3.1 Kauri dieback disease (Phytophthora agathidicida)

Symptomatic kauri trees infected with kauri dieback disease exhibit root and collar rot, resinexuding lesions, yellowing of leaf tissue, canopy thinning and mortality. Human-mediated movement of contaminated soil is the main cause of jump-dispersal between kauri forests but it can be spread locally by feral pigs. The disease can be incurably fatal to kauri trees of all ages and, in the absence of effective treatment, has mid to long-term potential to cause functional extinction of kauri as a canopy species. Kauri are ecosystem engineers, with profound effects on soil chemistry, and associated plant and animal communities. Consequently there is a potential for catastrophic loss of associated unique ecosystems.



**Objective:** over the duration of the plan Auckland Council will exclude kauri dieback (*Phytophthora agathidicida*) from establishing within kauri dieback exclusion zones (as identified in Map 5) to prevent adverse effects on economic well-being, the environment, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "exclusion" which means to prevent the establishment of kauri dieback within kauri dieback exclusion zones.

#### **Rules:**

7.1.3.1.1 No person shall distribute, move or release kauri dieback disease in the Auckland region.

<sup>&</sup>lt;sup>8</sup> 1 February 2019

- 7.1.3.1.2 No person shall move untreated kauri plant material to or among Hauraki Gulf Controlled Area islands, unless the purpose of the movement is to dispose of the material at an approved Auckland Council containment landfill<sup>9</sup>.
- 7.1.3.1.3 All commercial transport operators moving goods or people to or among Te Tīkapa Moana / the Hauraki Gulf Islands must attain and maintain Pest Free Warrant accreditation.
- 7.1.3.1.4 All occupiers of a commercial passenger boat or aircraft exit or entry point to the Hauraki Gulf Controlled Area islands must:
  - i. provide information, supplied by Auckland Council, to passengers about kauri dieback disease;
  - ii. provide space for an Auckland Council-maintained phytosanitary station for passengers to use to prevent the spread of kauri dieback disease.

The purpose of rule 7.1.3.1.1 is to specify the circumstances in which the pest may be communicated, released, or otherwise spread.

The purpose of rule 7.1.3.1.2 and 7.1.3.1.3 is to regulate the movement of goods that may contain or harbour the pest or otherwise pose a risk of spreading the pest.

The purpose of rule 7.1.3.1.4 is to require the occupier of a place to carry out specified treatments or procedures to assist in preventing the spread of the pest.

A breach of these rules is an offence under s154N(19) of the Biosecurity Act.

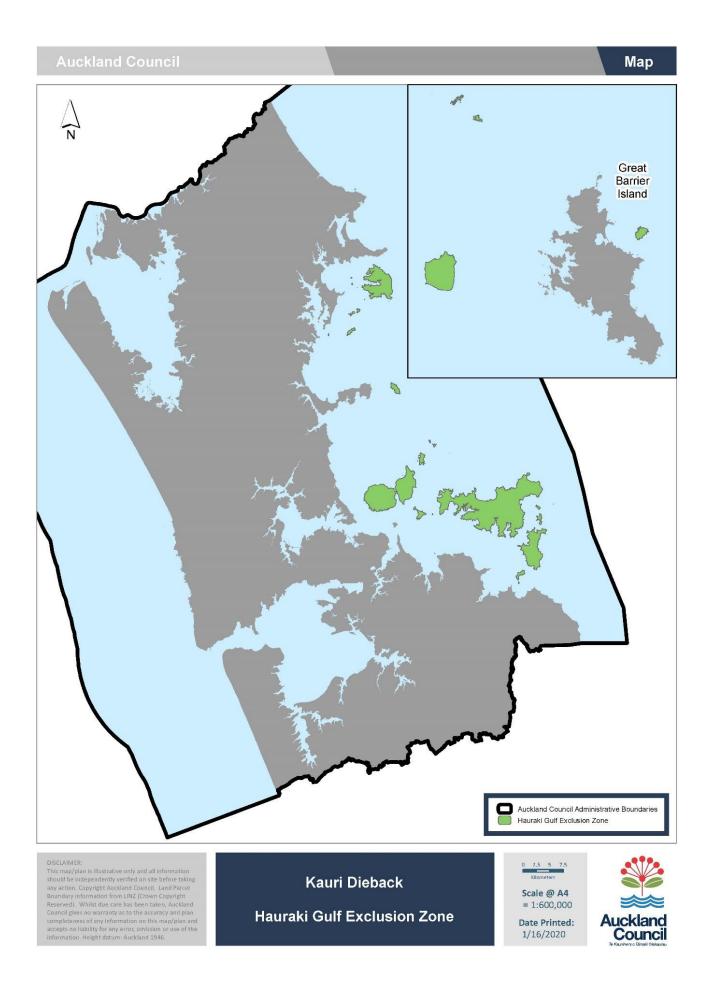
<sup>&</sup>lt;sup>9</sup> Approved at time of writing:

Ridge Road Quarries, Ridge Road, Bombay (accepts soil only)
 EnviroWaste Hampton Downs Landfill, 136 Hampton Downs Road, RD2, Te Kauwhata (accepts soil and organic material).

<sup>3.</sup> Waste Management's Redvale Landfill, Landfill Acess Road, Dairy Flat (the use of a bin liner is required at this landfill) - accepts soil and organic matter.

Other facilities may be approved over the lifetime of the plan. Updates, if any, to the list of approved landfills may be obtained on enquiry to Auckland Council.

Service delivery (control)	Provide and maintain phytosanitary stations at key entry and exit points to Te Tīkapa Moana / the Hauraki Gulf islands. Enter any property within the specified geographic area of the programme and carry out management of this species. Manage known vectors, including feral pigs.
Monitoring and surveillance	Undertake inspections, monitoring and surveillance, to determine the presence of new incursions and status of existing or historical sites. Specifically, improve understanding of disease absence (or presence) in non- symptomatic areas. Collaborate with other agencies in design of data collection and storage to ensure effective, integrated monitoring and surveillance across kauri lands.
Enforcement	Enforce restrictions on the movement of the pest and kauri plant material. Enforce requirements for phytosanitary stations at entry and exit points to Te Tīkapa Moana / the Hauraki Gulf. Enforce conditions of transport within the Hauraki Gulf Controlled Area, including Pest Free Warrant accreditation for all commercial transport operators.
Education and advice	Provide information and advice on identification and impacts of kauri dieback, and how to avoid spreading the pest.
Requirement to act	All persons to take practicable steps to avoid transport and distribution of kauri dieback e.g. ensure all footwear and other equipment are free of soil, especially when exiting areas known to be infected with kauri dieback disease or entering any island. Land occupiers of commercial entry or exit points to Te Tīkapa Moana / the Hauraki Gulf to make information available to all customers, and to allow Auckland Council to install and maintain phytosanitary stations.
	Persons moving kauri to or among Te Tīkapa Moana / the Hauraki Gulf islands to apply for an exemption (subject to hygiene status of source) or substitute with on-island sources.
Research and development	Contribute to multi-agency facilitation of research, including mātauranga Māori, and development in detection and control tools, understanding pathways of spread, and ecological impacts of kauri dieback disease on kauri and its ecosystem.



Map 5 Hauraki Gulf kauri dieback exclusion zone.

# 7.1.4 Aukati haere noa i te tupu orotā / Progressive containment pest plants

Rhamnus is too widespread in the Hauraki Gulf Controlled Area for eradication to be possible in the short term, but populations may be contained or reduced over time. Given this species' substantial impacts in these coastal ecosystems, intervention to prevent more extensive spread within the Hauraki Gulf is likely to be cost effective.

#### 7.1.4.1 Rhamnus (Rhamnus alaternus)

#### Also known as: evergreen buckthorn

Rhamnus is an evergreen shrub up to about 5m high with glossy serrated leaves, small green flowers and dark glossy red or black fruit. It forms dense stands, preventing the recruitment of native plants in scrublands, forest margins and plantations. It will also act as low scrub on coastal cliffs, inshore and offshore islands and rocky outcrops.



**Objective:** over the duration of the plan Auckland Council will progressively contain rhamnus (*Rhamnus alaternus*) to reduce adverse effects on economic well-being, the environment, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "progressive containment" which means to contain or reduce the geographic distribution of rhamnus, within the Hauraki Gulf Controlled Area over time.

#### **Rules:**

7.1.4.1.1 All occupiers of any land within the Hauraki Gulf Controlled Area (as defined in Map 2) who identify an infestation of rhamnus on that land must report the infestation to Auckland Council.

The purpose of this rule is to require a person to take specified actions to enable the management agency to determine or monitor the presence or distribution of the pest or a pest agent.

A breach of this rule is an offence under s154N(19) of the Biosecurity Act.

Service delivery (control)	Enter any property within the specified geographic area of the programme and carry out control work on this species.
Monitoring and surveillance	Undertake inspections, monitoring and surveillance of key risk areas to determine the presence of new infestations and status of existing or historical sites. Undertake inspections, monitoring and surveillance of nurseries, markets and online plant trade.
Enforcement	Enforce restrictions on the sale, propagation, distribution and exhibition of the pest plant.
Education and advice	Provide information and advice on pest plant identification, impacts and control.
Requirement to act	Land occupiers to report suspected new infestations.

### 7.1.5 Wāhi whai tupu orotā / Site-led pest plants

These site-led pest plants are plants present in the Hauraki Gulf Controlled Area that cause adverse effects to the environmental, economic, social or cultural values of the Hauraki Gulf Controlled Area. The following programmes provide for these species to be controlled to protect the values of these islands.

#### 7.1.5.1 Boxthorn (Lycium ferocissimum)

Boxthorn is a densely branched and spiny evergreen shrub up to 6m tall with creamy purple flowers and fleshy red fruit. It is a pest plant in coastal habitats; inhibiting the regeneration of native plants, ensnaring seabirds and impeding access to nesting sites. Spines can become imbedded in bone or soft tissue, resulting in infection and pseudo-tumours.



**Objective:** over the duration of the plan Auckland Council will manage boxthorn (*Lycium ferocissimum*) to protect values in places to prevent adverse effects on the economic well-being, the environment, human health, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to the Hauraki Gulf Controlled Area, is controlled within that area to an extent that protects the values of Te Tīkapa Moana / the Hauraki Gulf.

Service delivery (control)	Enter any property within the specified geographic area of the programme and carry out control work on this species.	
Monitoring and surveillance	Undertake inspections, monitoring and surveillance of key risk areas to determine the presence of new infestations and status of existing or historical sites. Undertake inspections, monitoring and surveillance of nurseries, markets and online plant trade.	
Enforcement	Enforce restrictions on the sale, propagation, distribution and exhibition of the pest plant.	
Education and advice	Provide information and advice on pest plant identification, impacts and control.	

#### 7.1.5.2 Moth plant (Araujia hortorum)

Moth plant is a perennial climber with scrambling stems, glossy leaves, white or pale pink flowers borne in clusters or singly, and fleshy pearshaped fruit. It smothers and kills plants up to medium-high canopy, preventing recruitment in forest, coastline, cliffs, shrublands, mānawa/mangroves, inshore and offshore islands, orchards and disturbed habitats. Based on its life-form, there can be long-term potential for catastrophic impacts on forest structure. Milky latex in stems, leaves and roots are poisonous and cause dermatitis.



**Objective:** over the duration of the plan Auckland Council will manage moth plant (*Araujia hortorum*) to protect values in place to reduce adverse effects on the environment, human health, enjoyment of the natural environment, and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga, as well as economic well-being, the environment, human health and enjoyment of the natural environment.

**Intermediate outcome:** "protecting values in places" which means that the subject, that is capable of causing damage to Waiheke and Rākino islands is controlled within Waiheke and Rākino islands to an extent that protects the values of those places.

Note: although contained within the Hauraki Gulf Controlled Area section of the plan, this moth plant programme applies only on Waiheke and Rākino, reflecting the relatively lower infestations on these islands, and past history of investment relative to other islands (though see also eradication programme on Aotea in section **Error! Reference source not found.**). The Department of Conservation manages moth plant on its own islands outside of this Regional Pest Management Plan framework.

#### **Rules:**

7.1.5.2.1 All occupiers of land on Waiheke or Rākino island must destroy all moth plant on that land.

The purpose of rule 7.1.5.2.1 is to require the occupier of a place to take specified actions to eradicate or manage the pest or a specified pest agent on the place.

A breach of this rule is an offence under s154N(19) of the Biosecurity Act.

Monitoring and surveillance	Undertake inspections, monitoring and surveillance of key risk areas to determine the presence of new infestations and status of existing or historical sites.
Enforcement	Enforce land occupier responsibility to control the pest plant pursuant to the rules in this section. Enforce restrictions on the sale, propagation, distribution and exhibition of the pest plant.
Education and advice	Provide information and advice on pest plant identification, impacts and control.
Requirement to act	Land occupiers to destroy plants when instructed.