

# Biosecurity Operational Plan 2021-2022

## Mahere tautahi whakahaumaru taiao



Tē tōia, tē haumatia

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# 1. Introduction | Tīmatanga kōrero

Tē tōia, tē haumatia

Nothing can be achieved without a plan, workforce, and way of doing things.

## Background

The Northland Regional Council (council) is the management agency responsible for developing and implementing the Northland Regional Pest and Marine Pathway Management Plan 2017-2027 in accordance with the Biosecurity Act 1993 (Pest Plan). The Pest Plan is a combination of the eradication or effective management of specified pests (or groups of pests), and a marine pathway plan designed to prevent and manage the spread of harmful marine organisms via boat hull fouling within Northland coastal waters.

The Pest Plan describes the biosecurity activities that will be undertaken throughout Northland and outlines the management or eradication of specific organisms and/or marine pest pathways. Doing so will:

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

## Associated Documentation

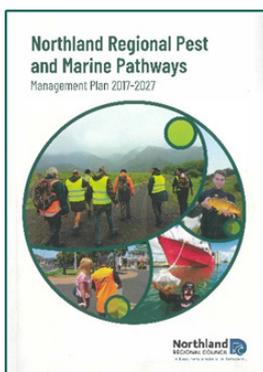
### Regional Pest and Marine Pathway Management Plan 2017-2027 (*the Pest Plan*)

This operational plan has been prepared as a requirement of the Biosecurity Act 1993 section 100B and should be read in conjunction with the Pest Plan. It includes all species listed in the Pest Plan. The plan describes the nature and scope of activities the Council intends to undertake in the implementation of the Pest Plan for the period 1 July 2021 – 30 June 2022. For full details of pest management objectives, aims, principal measures to manage pests, and pest management rules, please refer to the Pest Plan.

### Northland Regional Council Long Term Plan 2021-2031

This operational plan is integrated with council's Annual and Long Term plans which prescribe the funding and resources allocated to programmes within the plan. Council's Long Term Plan 2021-2031 maintains a focus on pest management activities in Northland. The plan states that the council will provide the services of:

- Reducing the impact of introduced pests on the environment, economic and social values; and,
- Protect the health of forests and lakes through effective regional pest control; and,
- Promoting community involvement in pest management, including tangata whenua, communities, district councils and other stakeholders.



<https://www.nrc.govt.nz/media/uhudlio4/northlandregionalpestandmarinepathwaymanagementplan20172027.pdf>



<https://www.nrc.govt.nz/media/wsidxsbe/inal-long-term-plan-2021-to-2031.pdf>

## 2. Implementation Programmes Whakatinana te hōtaka

The Pest Plan is implemented by programmes as detailed below:

### Exclusion Pests

Preventing the establishment of named pests in Northland. Council will search for and control new incursions of pests that are present in New Zealand, but not yet established in Northland and have the potential to be a serious pest. Emergency control actions of pests that are not listed in the Pest Plan can also be carried out.

### Eradication Pests

Eradicating identified pests in Northland. The intermediate outcome is to achieve zero density of these pests in certain areas. In the short to medium term, infestation levels will be reduced to the point where it becomes difficult to detect the pest.

### Implementation Programme Objectives

### Progressive Containment Pests

Containing and, where practicable, reducing the geographic distribution of certain pests in Northland over time. Eradication is not feasible, but it is practicable to prevent them from spreading to other parts of Northland, or to eradicate the pest from other parts of Northland.

### Sustained Control Pests

Providing ongoing control of a pest (or group of pests), or an organism being spread by a pest to reduce their impact. The intermediate outcome is to ensure any external impacts are manageable. This includes plants banned from sale and distribution.

### Marine Pathway Management Plan

Reduce and avoid impacts to biodiversity, cultural and economic values by preventing the establishment of marine pests and (where practicable), containing the geographic distribution of marine pests in Northland.

### 3. Pest species in the plan

# Ngā riwha katoa i te rautaki

Northland’s Pest Plan contains **143** species. A breakdown on the number and types of pests along with a detailed listing of the pests included is detailed in the tables below and overleaf.

Type of Pest	Number of Species (or groups of species) in the Pest Plan					Total
	Exclusion	Eradication	Progressive Containment	Sustained Control	Banned from sale or distribution	
Plants	13	22	5	18	35	93
Animals	11	3		12		26
Diseases				1		1
Fresh water	3	8	3	2		16
Marine				7		7
<b>Total</b>	<b>27</b>	<b>35</b>	<b>8</b>	<b>40</b>	<b>38</b>	<b>143</b>

**How are pest species determined?**

Many organisms in the Northland region are considered undesirable or a nuisance. Criteria set in Biosecurity Act 1993 must be met to justify regional intervention in managing them as pests. Evaluation details can be found here:

<https://www.nrc.govt.nz/media/ahhdcmt5/amededcostbenefitanalysisreportaugust2017.pdf>

## Pest species included in the plan

Pest Type	Exclusion Species	Eradication Species	Progressive Containment
Plants	Asiatic knotweed Chinese knotweed Climbing spindle berry Giant hogweed Giant knotweed Holly-leaved senecio Houttuynia Noogoora bur Old man's beard Phragmites Purple loosestrife Sea Spurge Velvetleaf	Akebia Balloon vine Bat-wing passionflower Cape tulip Cathedral bells Chilean rhubarb Evergreen buckthorn Field horsetail Firethorn Gypsywort Lesser knotweed Mexican feather grass Mickey mouse plant Monkey musk Nassella tussock Nutgrass Royal fern Spartina species including: <i>Spartina alterniflora</i> <i>Spartina anglica</i> <i>Spartina townsendii</i> Wilding kiwifruit Yellow flag iris	African feather Grass Lantana (all varieties) Manchurian wild rice Mile-a-minute Pultenaea
Animals	Bearded dragon Big headed ant Blotched blue tongued skink Common blue tongued skink Indian ring-necked parakeet Rainbow lorikeet Rook Sulphur crested cockatoo Wallaby (all <i>Macropus</i> , <i>Petrogale</i> and <i>Wallabia</i> species)	Feral deer including all species and hybrids of: <i>Cervus</i> <i>Dama</i> <i>Odocoileus</i>	
Disease			
Fresh water	Entire marshwort Orfe Water poppy	Eastern water dragon Eel grass Nardoo Red-eared slider turtle Salvinia Senegal Tea Snake-necked turtle Water hyacinth	Koi carp Perch Tench
Marine			

Pest Type	Sustained Control	Banned from Sale and Distribution
Plants	<p>Bathurst bur</p> <p>Brazilian Pepper tree</p> <p>Gorse</p> <p>Gravel Groundsel</p> <p>Phoenix palm</p> <p>Privet (Ligustrum) including:  <i>L. lucidum</i> (tree privet)  <i>L. sinense</i> (Chinese privet)  <i>L. ovalifolium</i> (privet)  <i>L. vulgare</i> (common privet)</p> <p>Queen of the night</p> <p>Rhus tree</p> <p>Wild ginger including:  Yellow ginger  Kahili ginger</p> <p>Wilding conifers including:  <i>Pinus contorta</i>  Douglas fir  Maritime pine  Radiata pine  Woolly nightshade</p>	<p>Agapanthus</p> <p>Black-eyed Susan</p> <p>Broom</p> <p>Brush wattle</p> <p>Buddleia</p> <p>Camphor laurel</p> <p>Cape honey flower</p> <p>Cape ivy</p> <p>Century plant</p> <p>Coastal banksia</p> <p>Cotoneaster incl:  <i>C. glaucophyllus</i>  <i>C. franchetii</i></p> <p>Eleagnus</p> <p>Elephant's ear</p> <p>English ivy</p> <p>Furcraea</p> <p>German ivy</p> <p>Greater bindweed Hakea</p> <p>Hakea</p> <p>Himalayan fairy grass</p> <p>Himalayan honeysuckle</p> <p>Jasmine</p> <p>Kangaroo acacia</p> <p>Lily of the valley vine</p> <p>Oxylobium</p> <p>Paperbark poplar</p> <p>Periwinkle</p> <p>Prickly Moses incl:  <i>Acacia verticillata subsp. cephalantha</i>  <i>A. v. subsp. ruscifolia</i></p> <p>Sexton's bride</p> <p>Sharp rush</p> <p>Sycamore</p> <p>Sydney golden wattle</p> <p>Taiwan cherry</p> <p>Velvet groundsel</p>
Animals	<p>Argentine ant</p> <p>Darwin's ant</p> <p>Feral and stray cats</p> <p>Feral goat</p> <p>Feral pig</p> <p>Mustelids incl:  Ferret  Stoat  Weasel</p> <p>Possum</p> <p>Rabbit</p> <p>Rodents incl:  Norway rat  Ship rat</p>	
Disease	Kauri dieback	
Fresh water	<p>Brown bullhead catfish</p> <p>Rudd</p>	
Marine	<p>Asian paddle crab</p> <p>Australian droplet tunicate</p> <p>Japanese mantis shrimp</p> <p>Mediterranean fanworm</p> <p>Pyura sea squirt</p> <p>Styela sea squirt</p> <p>Undaria seaweed</p>	

## 4. Financial summary

# Whakarāpopoto ā pūtea

Council's Long Term Plan 2018 - 2028 provides the necessary funding (via rates and user charges) for the operational and planning activities associated with biosecurity and pest management carried out by Northland Regional Council. Additional external funding grants have also been allocated to supplement council investment in pest management.

Biosecurity Activities 2021 - 2022	Long Term Plan
Biosecurity Overheads <sup>1</sup>	\$2,897,893
Partnerships <sup>2</sup>	\$2,687,463
Predator Free 2050 <sup>3</sup>	\$2,758,489 <sup>4</sup>
Pest Plants and Freshwater	\$829,760 <sup>5</sup>
Wilding Conifer Project	<i>To be confirmed</i>
Diseases and Incursions <sup>6</sup>	\$730,974
Kauri Dieback Track Mitigation Project	\$746,668 <sup>7</sup>
Marine	\$1,022,056
<b>Total Biosecurity Expenditure</b>	<b>\$11,673,303</b>

*NOTE: 2021-2022 budget for the wilding conifer control project has yet to be confirmed.*

<sup>1</sup> Includes staff training and leave, vehicle running costs, regional and national working group costs, administration staff, and council support services.

<sup>2</sup> Includes sustained control animals and materials for resale.

<sup>3</sup> Includes funding for Predator Free Taitokerau, Predator Free Whangarei, and Predator Free Bay of Islands.

<sup>4</sup> Predator Free 2050 project budget is subject to review.

<sup>5</sup> Excludes Manchurian Wild Rice operational expenditure (to be confirmed).

<sup>6</sup> Includes large eradication and exclusion animals.

<sup>7</sup> Kauri Dieback Track Mitigation Project budget is subject to review.

## 5. Team key performance indicators

### Ngā tohu paetawhiti o te roopū

Biosecurity has several key performance measures applicable over all or some of the department as detailed in the table below.

Additional focussed key performance measures applicable within specific areas of the Biosecurity are detailed as required in Sections 6 – 10 of this operational plan.

Department area	Key performance measures	How will this be measured?
Whole department	<b>Community engagement</b> Total number of engagement events and other social media interactions is maintained or is greater than the previous year.	Events attended and social media interactions recorded and reported annually.
Whole department	<b>Bicultural collaboration:</b> Number of relationships and collaborative projects that are underway with hapū / whanau / iwi increases by a minimum of 5% annually.	Recorded via council databases.
Whole department	<b>Bicultural capability</b> All permanent staff will have achieved competency level 1 in council's Te Whāriki workshops.	Human resources records.
Pest Plants Pest Animals Freshwater Pests	<b>Identify new sites</b> Identify new sites of exclusion, eradication and progressive containment pest through passive and active surveillance by council staff, the public, or through regional surveillance.	Evidence of the records of new sites reported and recorded.
Pest Plants Pest Animals Freshwater Pests	<b>Exclusion incident investigation</b> Initial investigations for all reported sightings and/or discoveries of exclusion species undertaken within 5 working days.	Reported via council database.
Pest Plants Pest Animals Freshwater Pests	<b>Exclusion incident response</b> A response plan developed and implemented for any new incursion of an exclusion species within 20 working days of confirmation of species.	Evidence of plans developed.

Department area	Key performance measures	How will this be measured?
Pest Plants Freshwater Pests	<b>Eradication incident investigation and response</b> Initial investigations for all reported sightings and/or discoveries of eradication species undertaken within 10 working days and control actions completed within 20 days.	Reported via council database.
Pest Plants Freshwater Pests	<b>Progressive containment incident investigation and response</b> Initial investigations for all reported sightings and/or discoveries of Progressive Containment species undertaken within 10 working days and decisions documented within 20 working days.	Council database.
Pest Plants Pest Animals Freshwater Pests	<b>Request response time</b> Response to requests from the public on sustained controlled pests will be responded to within 20 working days.	Reported via council database.
Pest Plants	<b>Plant retail outlet compliance</b> All known plant outlets in Northland are inspected annually for exclusion, eradication, progressive containment and sustained control species, and species banned under the National Pest Plant Accord.	Record of plant outlets visited by staff and any non-compliances found.



*Biosecurity team visit to Moria marae.*

# 6. Pest plants | Ota-ota rāwaho riha

## 6.1 Exclusion plants

Eradication of infestations of exclusion plants will be attempted by the council in conjunction with relevant Crown agencies, tangata whenua, and other stakeholders where practicable.

Council will provide training to relevant council staff and stakeholders about the identification of the exclusion pests to assist in early detection. Council will provide advice, attend events, and undertake publicity campaigns to increase public awareness of exclusion pests.

### Regulatory programmes include:

- Enforcement of rules relating to exclusion plants.
- Eradication of exclusion plants found in Northland.
- Inspection / enforcement of rules relating to Plant nurseries and retail outlets (National Pest Plant Accord).

### Non-regulatory services include:

- Supporting eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage exclusion plants.
- Support, attend and provide public weed control workshops to raise awareness and provide training to relevant stakeholders.
- Manage contractors relating to control of exclusion plants.

## 6.2 Eradication Plants

Control work will be undertaken annually by council staff / contractors / partners and/or stakeholders and detailed work plans will be developed for specific pests.

### Regulatory programmes include:

- Enforcement of rules relating to eradication plants.
- Eradication of species listed within the eradication programme.
- Inspection / enforcement of rules relating to Plant nurseries and retail outlets (National Pest Plant Accord).

### Non-regulatory services include:

- Support eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage eradication plants.
- Support, attend and provide public pest control workshops to raise awareness.
- Manage contractors relating to control of eradication plants.

### Key performance measures

Key performance measures	How will this be measured?
All management sites visited on scheduled best practice rotation (based on biological characteristics of each species and defined in the species programme record in the Council's IRIS database).	Reported from council database.
Annual decrease in number of adult plants observed and /or the infestation area at existing management sites.	Reported from council database.

## 6.3 Progressive containment plants

Council staff will aim to eradicate populations outside the containment zone and reduce the size of the containment zone through a variety of control methods, including but not limited to spraying.

Council staff will also support communities to reduce the impact of progressive containment pests through several regulatory and non-regulatory biosecurity programmes.

### Regulatory programmes include:

- Enforcement of rules relating to progressive containment plant species.
- Eradication and reduction of infestations of progressive containment plants may be attempted by the council in conjunction with relevant Crown agencies, tangata whenua and stakeholders.

### Non-regulatory services include:

- Develop and support community pest control programmes.
- Develop and support biosecurity environment fund projects.
- Support community, mana whenua, and landcare groups.
- Provide advice about how to manage progressive containment species.
- Support, attend and provide public weed control workshops.
- Provide public weed workshops.
- Support biocontrol for progressive containment species.



*Manchurian wild rice at Tangowahine*

### Key performance measures

Key performance measures	How will this be measured?
Annual reporting on the status of all progressive containment pests.	Included in the annual Biosecurity Operational report.
100% of council managed sites visited on scheduled best practice rotation (based on biological characteristics of each species and defined in the species programme record in the Council's IRIS database).	Evidence of schedule and visits made reported back.
Annual decrease in number of adult plants and or the infestation area at existing council managed sites.	Reported from council database.

## 6.4 Sustained Control Plants

Council will provide advice to relevant road and rail authority staff regarding development and implementation of management plans for sustained control plants. Sustained control plants are managed through both regulatory and non-regulatory biosecurity programmes.

### Regulatory programmes include:

- Enforcement of rules relating to sustained control plant species.
- Enforcement of Good neighbour rules.
- Inspection / enforcement of rules relating to Plant nurseries and retail outlets (National Pest Plant Accord).
- Inspection / enforcement of rules relating to Quarries.
- Enforcement of rules relating to Road and rail, and development and implementation of management plans).

### Non-regulatory services include:

- Develop and support community pest control programmes and high value areas.
- Develop and support biosecurity environment fund projects.
- Support community, mana whenua, and land care groups.
- Provide advice about how to manage sustained control species.
- Support, attend and provide public weed control workshops.
- Provide public weed workshops.
- Continuing investing in deployment and development of biocontrol agents for sustained control plants.

### Key performance measure

Key performance measures	How will this be measured?
All road and rail authorities have five year weed management plans or prioritised annual plans approved and implemented.	Evidence of management plans in place and monitored.



*Roadside privet*

# 7. Pest animals | Karerehe rāwaho riha

## 7.1 Exclusion animals

Eradication of infestations of exclusion animals will be attempted by the council in conjunction with relevant Crown agencies, tangata whenua, and other stakeholders where practicable.

Council will provide training to relevant council staff and stakeholders about the identification of the exclusion pests to assist in early detection. Council will provide advice, attend events and undertake publicity campaigns to increase public awareness of exclusion pests.

### Regulatory programmes include:

- Enforcement of rules relating to exclusion animals.
- Eradication of exclusion animals found in Northland.

### Regulatory programmes include:

- Support eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage exclusion animals.
- Support, attend and provide public pest control workshops to provide training and raise awareness to assist in early detection.
- Manage contractors relating to control of exclusion animals.
- Council will provide advice, attend events, and undertake publicity campaigns to increase public awareness of exclusion animals.



*Exclusion pest the dama wallaby.*

## 7.2 Eradication animals

These pests all have the potential to establish widely in the region and can cause adverse effects to the environmental, economic, social, or cultural values of the region. Council is either the lead agency or a partner for eradicating these pests from the region.

Eradication of the eradication pests will be undertaken by the council in conjunction with relevant Crown agencies, tangata whenua, and other stakeholders where practicable.

### Regulatory programmes include:

- Enforcement of rules relating to eradication animals.
- Eradication of species listed within the eradication programme.

### Non-regulatory services include:

- Support eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage eradication animals.
- Support, attend and provide public pest control workshops to raise awareness.
- Manage contractors relating to control of eradication animals.

### Key performance measures

Key performance measures	How will this be measured?
Any faults in deer farm fences observed via field inspections that pose a risk of deer escaping are reported to the Department of Conservation within 24 hours for remedial action.	Council database.
100% of deer incidents are responded to within 48 hours.	Incidents and time to respond are recorded in council databases.
Known deer populations are surveyed and mapped across Northland.	Data recorded on council mapping software.
Attempt to resolve legal and accountability issues regarding feral deer in Northland.	Evidence of resolution.

## 7.3 Sustained control animals

Sustained control animals are generally managed through non-regulatory biosecurity partnerships, regulatory measures are used when required.

Regulatory programmes include:

- Enforcement of rules relating to sustained control animal species.

Non-regulatory services include:

- Develop and support community pest control programmes and high value areas.
- Develop and support biosecurity environment fund projects.
- Develop and support significant biosecurity partnerships (eg. NRC-Kiwi Coast Partnership).
- Support community, mana whenua, and land care groups.
- Provide advice about how to manage sustained control animals.
- Support, attend and provide public pest control workshops.
- Provide selected pest control materials.
- Manage contractors relating to sustained control animal control.
- Staff will assist landowners and agencies to develop management plans to manage sustained control animals in Northland.

Key performance measures

Key performance measures	How will this be measured?
Increase in hectares of land under CPCA's per annum (increase by 5000 ha).	Evidence of management plans which show hectares of CPCA's.
Measure annual outputs of council supported programmes – may include: <ul style="list-style-type: none"> <li>• Number of traps issued.</li> <li>• Number of kills recorded.</li> <li>• Number of Biofund projects approved.</li> </ul>	Council database records.
Contractors specifically engaged by council for possum control will meet a target of ≤5% residual possum densities in council led operations.  Council supported programmes undertaking possum control are achieving agreed targets set in community pest control area agreements.	Possum index monitoring.

## 7.4 Predator Free Whangārei

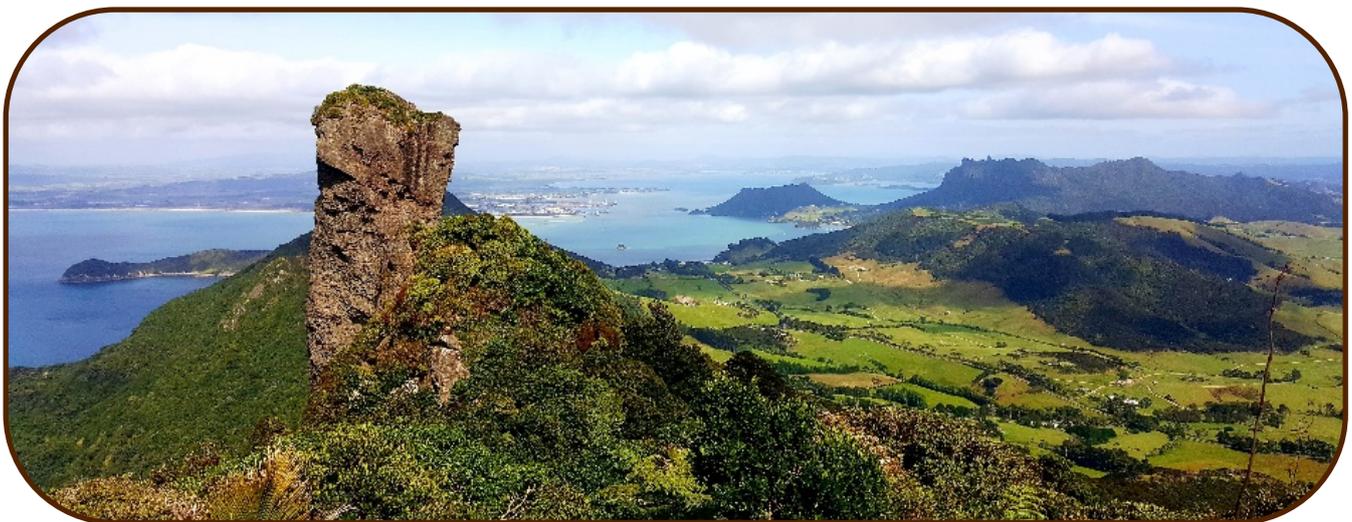
Predator Free Whangārei aims to protect, restore, and enhance thousands of hectares of Northland’s native forests, coastal habitats and wetlands, allowing for greater protection and enhancement of threatened species of native fauna and flora.



It will link and connect several community led, landscape scale predator control programmes delivering environmental awareness and enhancement programmes. The project will completely remove possums from 8,600 ha of the Whangārei Heads area and utilise the narrow neck of the peninsula and numerous inlets and streams to protect from reinvasion. Eradication will be achieved by 2025.

### Key performance measures

Key performance measures	How will this be measured?
Possum Eradication: Percentage of project area in knockdown / removal phase.	Area under active management
Possum Eradication: Percentage of project area in surveillance phase (detection and response).	Area under surveillance



*View of Whangārei Heads from the Te Whara Track (photo by Robyn Broadhurst)*

# 8. Diseases and pathogens

## Ngā mate uru tāme me ngā tukumate

The kauri dieback programme is a multi-agency programme involving the Ministry for Primary Industries, Department of Conservation, Northland Regional Council, Auckland Council, Waikato Regional Council, Bay of Plenty Regional Council, and tangata whenua.

The programme will utilise scientific and technological advancements to help reduce the spread of kauri dieback including Matauranga Māori.

### 8.1 Implementation

#### Regulatory programmes include:

- Enforcement of rules relating to sustained control disease.
- Development of high-risk kauri dieback management plans.
- Council staff and/or their contractors will visit all places on private land suspected of containing kauri dieback to undertake further assessment or testing.

#### Non-Regulatory Services Include:

- Develop and support community pest control programmes (CPCA).
- Develop and support biosecurity environment fund projects.
- Develop and support significant biosecurity partnerships (NRC-Kiwi Coast Partnership and Māori).
- Support community, mana whenua, and land care groups.
- Provide advice about how to manage sustained control disease.
- Support, attend and provide public kauri dieback workshops.
- Provide selected pest control materials.
- Manage contractors relating to sustained control species.



*Tane mahuta*

## Key performance measures

Key performance measures	How will this be measured?
100% of remaining aerial survey sites on private land will be sampled and a minimum of 50% will have management plans	Evidence of the number of sites sampled and KDB management plans completed will be recorded on council databases.
A minimum of 5 hygiene stations installed at priority sites.	Evidence of stations recorded on council database
Maintain a record of distribution of kauri dieback disease across Northland.	Recorded on national and council data systems.
All incidents are recorded, and a response plan is developed and implemented within 20 working days.	Evidence held on council database.
Deliver a minimum of ten public engagement events annually	Evidence held on council database

# 9. Freshwater pests | Riha wai māori

## 9.1 Exclusion freshwater pests

### Regulatory programmes include:

- Enforcement of rules relating to exclusion freshwater pests.
- Eradication of exclusion freshwater pests found in Northland.
- Inspection / enforcement of rules relating to Plant nurseries and retail outlets (National pest plant accord).

### Non-Regulatory programmes include:

- Support eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage exclusion freshwater species.
- Support, attend and provide public pest control workshops to raise awareness.
- Manage contractors relating to control of exclusion species.
- Provide training to relevant council staff and stakeholders about the identification of the exclusion pests to assist in early detection.
- Provide advice, attend events, and undertake publicity campaigns to increase public awareness of exclusion pests.

## 9.2 Eradication freshwater pests

### Regulatory programmes include:

- Enforcement of rules relating to eradication freshwater species.
- Eradication of species listed within the eradication programme.
- Inspection / enforcement of rules relating to plant nurseries and retail outlets (national pest plant accord).

### Non-Regulatory programmes include:

- Support eradications undertaken by other Crown agencies, tangata whenua, and other stakeholders.
- Provide advice about how to manage eradication freshwater species.
- Support, attend and provide public pest control workshops to raise awareness.
- Manage contractors relating to control of eradication freshwater species.

## Key performance measures

Key performance measures	How will this be measured?
100% of NRC freshwater pest plants management sites visited on scheduled best practice rotation (based on biological characteristics of each species and defined in the species programme record in the Council's IRIS database).	Evidence of schedule and visits made reported back.
Develop database and map tool for managing turtle sightings and reliable turtle surveillance and capture techniques.	Report on progress to date

## 9.3 Progressive Containment Freshwater Pests

### Regulatory programmes include:

- Enforcement of rules relating to progressive containment control freshwater species.
- Eradication and/or reduction of infestations of the progressive containment freshwater pests may be attempted by the council in conjunction with relevant Crown agencies, tangata whenua, and other stakeholders where practicable.

### Non-regulatory services include:

- Council staff will assist landowners to develop management plans.
- Council will provide training to relevant council staff and stakeholders in the identification of pests to assist in early detection.
- Council staff will provide advice, attend events, and undertake publicity campaigns to increase public awareness of pests.
- New technologies and methods will be investigated and introduced where possible.



*Koi carp*

## Key performance measures

Key performance measures	How will this be measured?
Maintain an updated distribution record of progressive containment pest fish species (refer previous measures on investigation of incidents/reports).	Reported from council database.
Training, surveillance, control, and eradication actions attempted for progressive containment pest fish species will be reported annually.	Summary included in the annual Biosecurity Operations Plan report.

## 9.4 Sustained Control Freshwater Pests

### Regulatory programmes include:

- Enforcement of rules relating to sustained control freshwater species.



*Sustained control freshwater pest Rudd*

### Non-regulatory services include:

- Council staff will provide education and advice to owners, occupiers, and the public about the freshwater sustained control pests and how to control them.
- Council will provide training to relevant council staff and stakeholders in the identification and control of the sustained control freshwater pests.
- Council will provide advice, attend events, and undertake publicity campaigns to increase public awareness of these freshwater pests.

# 10. Marine pathways management plan

## Rautaki wai moana

### Background of the Marine Pathway Management Plan

Over the life of the Pest Plan (including the Marine Pathway Management Plan), council has the following aims:

- To increase the number of vessel owners and/or persons in charge of vessels complying with the pathways plan rules.
- To see a reduction in new marine pest introductions to Northland.
- To see a reduction in the rate of spread of established marine pests within Northland.
- To help marine stakeholders, coastal marine area occupiers, vessel owners and the public to gain knowledge and skills to help reduce the impacts and spread of sustained control pests and to understand the risk hull biofouling poses to marine pest spread.

Since 2010 council has had a species led approach to managing marine pests. However, identifying marine pests and potential risk organisms for Northland is difficult so rather than relying solely on the species led approach, council is addressing a universal vector of spread. Mediterranean fanworm is just one of many species that has entered the region via hull biofouling, with over 100 vessels carrying fanworm found in Northland since 2012. Taking a proactive approach and encouraging cleaner hulls through a MPMP will result in fewer vessels carrying marine pests and other biofouling to the region and reduce the risk of new marine pest incursions.

The programme includes the following species and pathways:

Marine pests and pathway		
Marine pathway plan	Hull fouling: Level of Fouling 2 or 'light fouling'*	
Sustained control marine pests	Asian paddle crab Australian droplet tunicate Japanese Mantis Shrimp Mediterranean fan worm	Pyura sea squirt Styela sea squirt Undaria seaweed

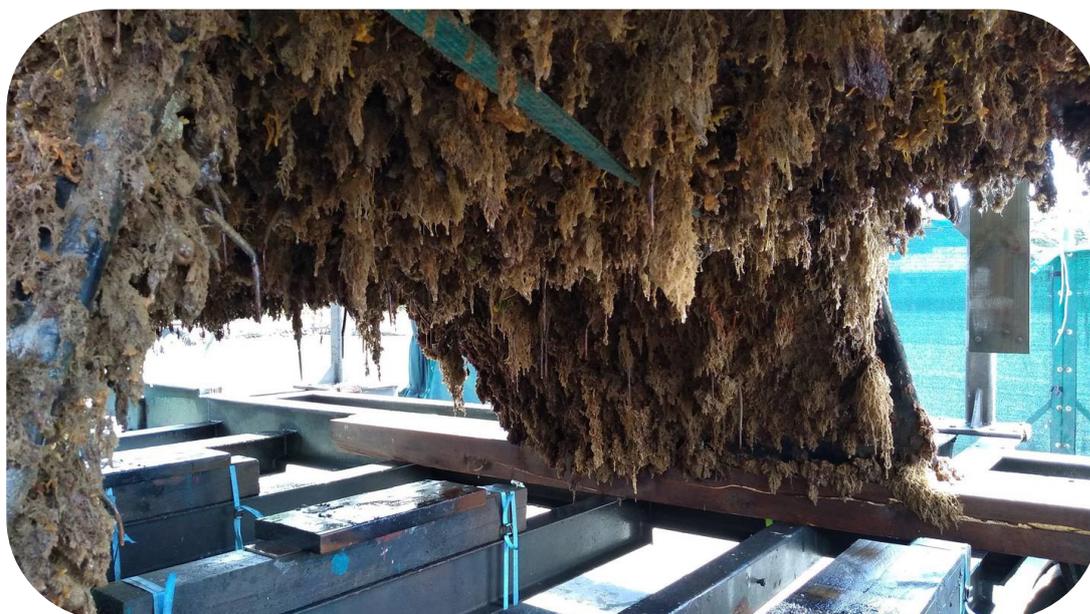
*\*light fouling is defined as: small patches (up to 100 millimetres in diameter) of visible fouling, totalling less than 5% of the hull and niche areas. A slime layer and/or any species of barnacles is allowable fouling.*

### Implementation

- Continue with existing communication and advice programmes to assist vessel owners & stakeholders with ensuring compliance with rules.
- The Hull Surveillance Programme will assess a minimum of 2000 vessels annually. Any vessel carrying a named marine pest in an area where that pest is not widely established, will be formally directed to make a plan to have the vessel cleaned. In addition, owners of vessels that exceed the MPMP fouling threshold will be advised and issued a warning letter encouraging them to have the vessel cleaned and explaining that enforcement action will follow if they fail their next inspection and move between designated places.
- Enforcement action on vessels will be tracked in IRIS (councils online incident logging database).
- Owners of structures that constitute high risk in terms of marine pest spread will also be subject to consideration and assessment for the need of a marine pest management plan in accordance with species rules.

## Performance Targets and Measures

Key performance measures	How will this be measured?
<p>Compliance with the marine pest and pathway plan is recorded and trends over the duration of the plan are analysed.</p> <p>The vessel hull surveillance programme will inspect a minimum of 2000 vessel hulls annually.</p>	<p>Compliance with the pathway plan and all incidents will be recorded and reported monthly.</p> <p>Evidence of hulls surveyed recorded on council databases</p>
<p>A minimum of two engagement activities annually are conducted to facilitate an increase in awareness of the risk hull fouling poses to the spread of marine pests.</p>	<p>Engagement events will be recorded on council databases</p>
<p>Introductions of new marine pests to Northland and spread of established pests to new designated areas within Northland are recorded and trends over the duration of the plan are analysed.</p>	<p>Number of incidents and reports of marine pests will be recorded and reported monthly.</p> <p>Surveillance activities will be recorded to contribute to an assessment of surveillance effort over the duration of the plan.</p>
<p>All significant incidents are recorded, and a response plan is developed and implemented within 5 working days.</p>	<p>Incidents recorded on council databases.</p>



*Heavy fouling on a yacht in Mangonui*

# 11. Operational plan reporting

## Ripoata mahere tautahi whakahaumaru whakamahi

Council will produce a report on the operational plan and its implementation not later than 5 months after the end of each financial year.

A copy of this report will be provided to council.

# 12. Operational plan review

## Arotake mahere tautahi whakahaumaru whakamahi

This operational plan will be reviewed periodically as required.

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