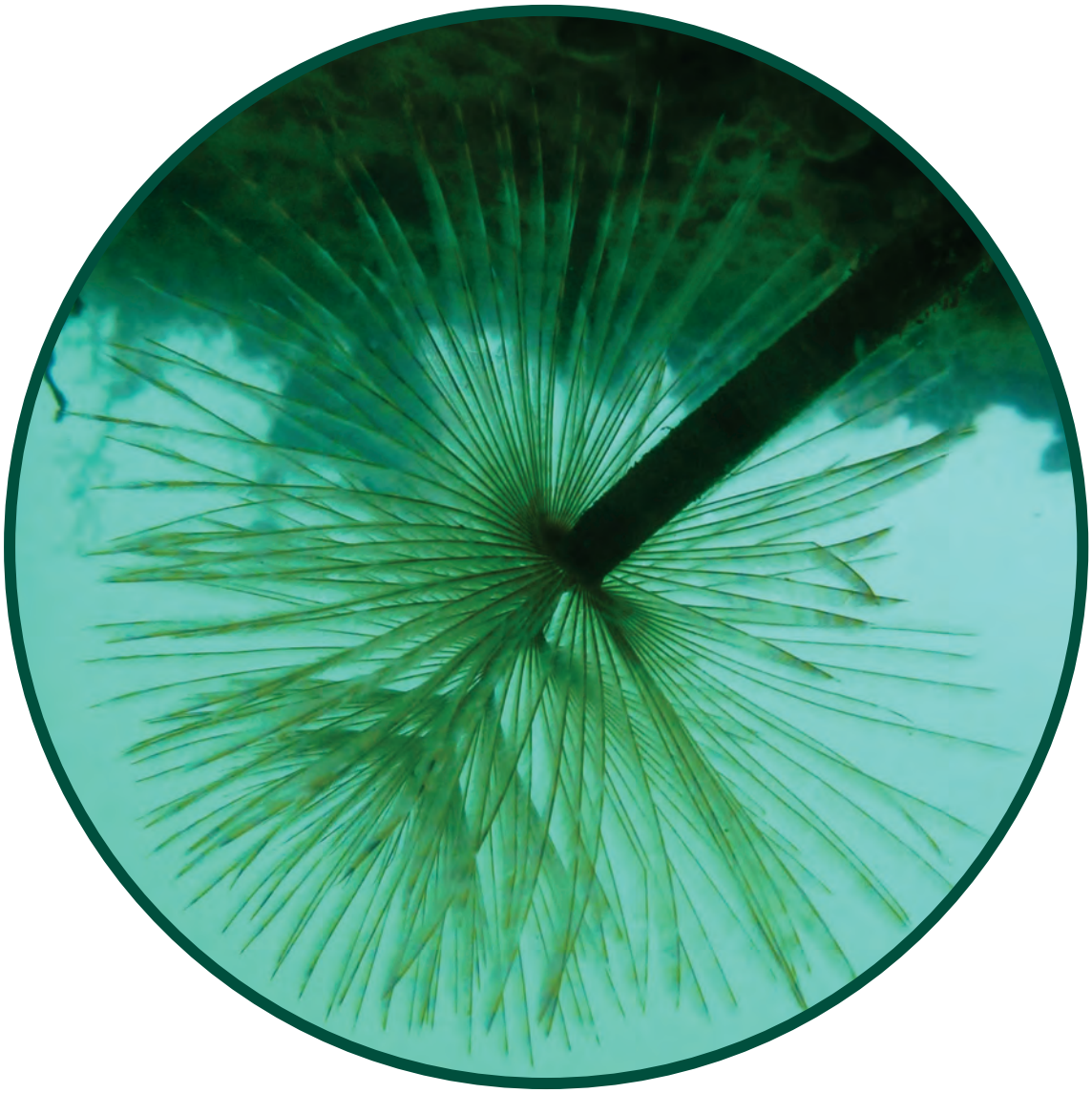
Biosecurity Operational Plan 2022-2023
Mahere tautahi whakahaumaru taiao



Tē tōia, tē haumatia

Northland REGIONAL COUNCIL
Te Kaunihera ā rohe o Te Taitokerau

Contents | Ihirangi

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.

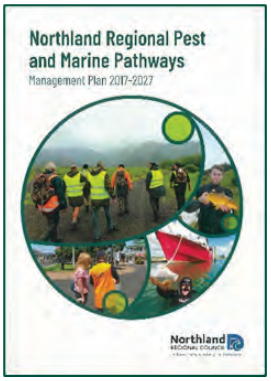
The Pest Plan describes the biosecurity activities that will be undertaken throughout Northland and outlines the management or eradication of specific organisms and/or marine pest pathways. Doing so will:

- 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.



https://www.nrc.govt.nz/media/uhudlio4/northlandregionalpestandmarinepathwaymanagementplan201 72027.pdf

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/wsidxsbe/final-long-term-plan-2021-to-2031.pdf

2. Implementation Programmes
Whakatinana te hōtaka

The Pest Plan is implemented by programmes as detailed below:

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					
	Exclusion	Eradication	Progressive Containment	Sustained Control	Banned from sale or distribution	Total
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
Total	27	33	8	40	35	143

How are pest species determined?

Many organisms in the Northland region are considered undesirable or a nuisance. Criteria set in the 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/amendedcostbenefitanalysisreportaugust2017.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: *Spartina alterniflora* *Spartina anglica* *Spartina townsendii* 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 *Macropus*, *Petrogale* and *Wallabia* species)	Feral deer including all species and hybrids of: *Cervus* *Dama* *Odocoileus*	
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	Bathurst bur Brazillian Pepper tree Gorse Gravel Groundsel Phoenix palm Privet (Ligustrum) including: *L. lucidum* (tree privet) *L. sinense* (Chinese privet) *L. ovalifolium* (privet) *L. vulgare* (common privet) Queen of the night Rhus tree Wild ginger including: Yellow ginger Kahili ginger Wilding conifers including: *Pinus contorta* Douglas fir Maritime pine Radiata pine Woolly nightshade	Agapanthus Black-eyed Susan Broom Brush wattle Buddleia Camphor laurel Cape honey flower Cape ivy Century plant Coastal banksia Cotoneaster incl: *C. glaucophyllus* *C. franchetii* Eleagnus Elephant's ear English ivy Furcraea German ivy Greater bindweed Hakea Hakea Himalayan fairy grass Himalayan honeysuckle Jasmine Kangaroo acacia Lily of the valley vine Oxylobium Paperbark poplar Periwinkle Prickly moses incl: *Acacia verticillata subsp. cephalantha* *A. v. subsp. ruscifolia* Sexton's bride Sharp rush Sycamore Sydney golden wattle Taiwan cherry Velvet groundsel
Animals	Argentine ant Darwin's ant Feral and stray cats Feral goat Feral pig Mustelids incl: Ferret Stoat Weasel Possum Rabbit Rodents incl: Norway rat Ship rat	
Disease	Kauri dieback	
Fresh water	Brown bullhead catfish Rudd	
Marine	Asian paddle crab Australian droplet tunicate Japanese mantis shrimp Mediterranean fanworm Pyura sea squirt Styela sea squirt Undaria seaweed	

4. Financial summary
Whakarāpopoto ā pūtea

Council's Long Term Plan 2021 - 2031 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 2022- 2023	Long Term Plan
Biosecurity Overheads [1]	$2,974,791
Partnerships [2]	$2,205,078
Predator Free 2050 [3]	$3,424,991
Pest Plants	$667,333
Wilding Pine Project [4]	$890,000
Diseases and Incursions [5]	$303,177
Kauri Protection	$348,481
Marine	$507,983
Total Biosecurity Expenditure	**$11,321,834**

NOTE: Budget may be subject to changes prior to final adoption by council and external funding allocations.

[1] Includes staff training and leave, vehicle running costs, regional and national working group costs, administration staff, and council support services.
[2] Includes sustained control animals and materials for resale.
[3] Includes funding for Predator Free Taitokerau, Predator Free Whangarei, and Predator Free Bay of Islands.
[4] Wilding pine funding to be confirmed.
[5] Includes eradication and exclusion animals, and freshwater pest fish.

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	**Community engagement** 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	**Bicultural collaboration:** 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	**Bicultural capability** All permanent staff will have achieved competency level 1 in council's Te Whāriki workshops.	Human resources records.
Pest Plants Pest Animals Freshwater Pests	**Identify new sites** 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	**Exclusion incident investigation** 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	**Exclusion incident response** An initial 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	**Eradication incident investigation and response** Initial investigations for all reported sightings and/or discoveries of eradication species undertaken within 10 working days and control actions completed within 20 working days.	Reported via council database.
Pest Plants Freshwater Pests	**Progressive containment incident investigation and response** Initial investigations for all reported sightings and/or discoveries of Progressive Containment species (outside of containment zones) undertaken within 10 working days and decisions documented within 20 working days.	Council database.
Pest Plants Pest Animals Freshwater Pests	**Request response time** Response to requests from the public on sustained controlled pests will be responded to within 20 working days.	Reported via council database.
Pest Plants	**Plant retail outlet compliance** 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.

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.

Eradication plant bat-wing passionflower overgrowing a stone wall.

Key performance measures

Key performance measures	How will this be measured?
Best practice management 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.
Progress towards eradication Annual decrease in number of adult plants observed 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.

African feather grass invading sand dunes at Poutō.

Key performance measures

Key performance measures	How will this be measured?
Annual status reports Annual reporting on the status of all progressive containment pests.	Included in the annual Biosecurity Operational report.
Best practice management 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.
Progress towards eradication Annual decrease in number of adult plants 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?
Road and rail five year weed management plans 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 showing reduction in impacts of pest plants.
Best practice guide Best practice guide developed for all road and rail authorities	Evidence of a guide developed.

Blue morning glory overgrowing road signage in Tikipunga.

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 Indian ring-necked parakeet seen at **Whangārei** Heads.*

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.

Trail camera footage of a sika deer near Elliot's Bay in July 2021.

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?
Deer farm fence inspection 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.
Deer incident response and investigation 100% of deer incidents are responded to within 48 hours.	Incidents and time to respond are recorded in council databases.
Deer location records Known deer populations are surveyed and mapped across Northland.	Data recorded on council mapping software.
Resolve deer accountability issues 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. Northland Regional Council-Kiwi Coast Partnership).
- Support community, mana whenua, and landcare 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?
Land area in CPCAs Increase in hectares of land under CPCAs per annum (increase by 5000 ha).	Evidence of management plans which show hectares of CPCAs.
Council supported programmes Measure annual outputs of council supported programmes – may include: • Number of traps issued. • Number of kills recorded or post control pest densities, where known. • Number of Biofund projects approved. • Number of Community Pest Control Areas approved. • Trends in indicator species (eg. kiwi call counts and pateke flock surveys).	Council database records.
Possum index monitoring 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 surveillance Percentage of project area in surveillance phase (detection and response).	Area under surveillance

Possums caught on trail camera at Taurikura.

8. Diseases and pathogens
Ngā mate uru tāme me ngā tukumate

The *Phytophthora agathidicida* 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 *P. agathidicida* including mātauranga Māori.

Regulatory programmes include:

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

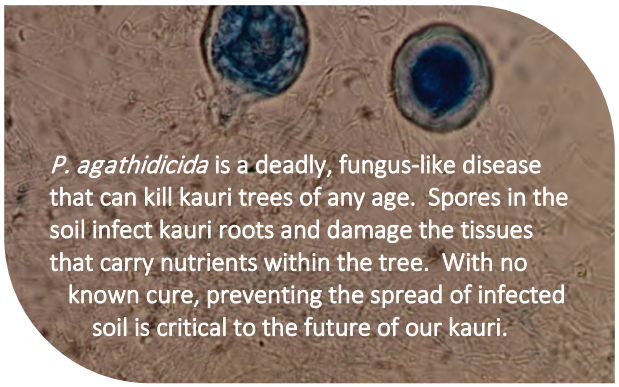
Non-Regulatory Services include:

- Support community, mana whenua, and landcare groups.
- Provide advice about how to manage sustained control disease.
- Support, attend and provide public *P. agathidicida* workshops.
- Provide materials to manage *P. agathidicida*.
- Manage contractors relating to sustained control species.

Boardwalk wending its way through young trees on the Kauri Mountain section of the Te Araroa trail.

Key performance measures

Key performance measures	How will this be measured?
Soil Sampling 100% of remaining aerial survey sites on private land will be sampled and a minimum of 50% of high risk sites will have management plans	Evidence of the number of sites sampled and *P. agathadicida* management plans completed will be recorded on council databases.
Follow up soil sampling Sample five previously sampled sites in order to reconfirm the status of the site with regard to the presence of *P. agathadicida.*	Evidence of the number of sites sampled recorded on council databases.
Hygiene stations A minimum of 5 hygiene stations installed at priority sites.	Evidence of stations recorded on council database
***P. agathidicida* distribution** Maintain a record of distribution of *P. agathidicida* disease across Northland.	Recorded on national and council data systems.
Incident response times All incidents are recorded, and a response plan is developed within 20 working days.	Evidence held on council database.
Community engagement Deliver a minimum of ten public engagement events annually	Evidence held on council database



P. agathidicida is a deadly, fungus-like disease that can kill kauri trees of any age. Spores in the soil infect kauri roots and damage the tissues that carry nutrients within the tree. With no known cure, preventing the spread of infected soil is critical to the future of our kauri.

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.

Eradication freshwater pest – red eared slider turtle.

Key performance measures

Key performance measures	How will this be measured?
Management site visit 100% of council freshwater pest plant 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.
Turtle location records and methodology Maintain database and map tool for management of turtle sightings.	Reported from council database.

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.

Biosecurity staff setting nets after a reported koi carp sighting at Lake Taharoa.

Key performance measures

Key performance measures	How will this be measured?
Distribution record Maintain a distribution record of progressive containment pest fish species.	Reported from council database.
Annual status reports 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.

Rudd - sustained control freshwater pest.

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 sustained control marine pests between designated areas 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 found infected with fanworm in uninfected Northland harbours 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?
Vessel compliance reporting Compliance with the marine pest and pathway plan is recorded and trends over the duration of the plan are analysed.	Compliance with the pathway plan and all incidents will be recorded and reported monthly.
Hull survey The vessel hull surveillance programme will inspect a minimum of 2000 vessel hulls annually.	Evidence of hulls surveyed recorded on council databases, or national databases as they become available.
Community engagement 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.	Engagement events will be recorded on council databases
New marine pests 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.	Number of incidents and reports of marine pests will be recorded and reported monthly. Surveillance activities will be recorded to contribute to an assessment of surveillance effort over the duration of the plan.
Incident response All significant incidents are recorded, and a response plan is developed and implemented within 5 working days.	Incidents recorded on council databases.

Young visitors to the marine Biosecurity display at an Experiencing Marine Reserves snorkelling event.

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.

Acknowledgements

Table of contents: Fantail image supplied by Stefan Billings

Northland Regional Council
P 0800 002 004
E info@nrc.govt.nz
W www.nrc.govt.nz