



Hadfield, Odin & Rangatira Halo

Pest Free Community Plan

2019 to 2026



Message from the Chair

It is with great pleasure and some excitement that I introduce the first Halo Plan for the Kaipātiki Community that aims to significantly reduce and eliminate invasive pest species in the area by 2026.

The Halo concept is to surround and encompass valuable ecological areas with a buffer area of guardian households who can intercept any incoming pest species of plants and animals and so give our native wildlife a great chance to breed and prosper.

I would like to recognise and congratulate the residents and community groups surrounding Hadfield, Odin and Rangatira Reserves for the significant restoration works that have already been completed to date. Through their dedication and tireless and productive efforts in weed removal, predator trapping and follow up weeding the area has already seen significant reductions in invasive species as highlighted in the recent chew card data and the quadrupling of bird-life in the area. Fantastic progress troops!

Pest Free Kaipātiki is a community-led initiative with a vision where birds and other native wildlife flourish in the area and everyone works together to support our natural heritage. Our strategy to support our native wildlife by removing pests will require a partnership between the community, businesses, schools and central and local government. In Kaipātiki we are extremely lucky to have 32% forest cover, much of it in local reserves. Our taxes and rates won't stretch far enough so we need to bring people on board in their homes, their streets, their workplaces as well as in reserves by providing information and fostering a spirit of collaboration amongst neighbours to do their bit to control rats, possums, other animal and plant pests.

Working with the Kaipātiki Local Board and Auckland Council we have developed a higher level of partnership and coordination. The Auckland Council now has a dedicated targeted rate for pest management and we are delighted that some of those funds are going towards our Halo projects. Pest Free Kaipātiki will launch six halo projects- with Hadfield, Odin and Rangatira being the first. The Halo concept enables us to have a greater focus on ecological restoration around areas of significant ecological value such as our kauri reserves. The Auckland Council funding provides us an opportunity to run year-long programmes supporting volunteers, community groups, schools, business and contractors to move towards pest free status.

Pest Free Kaipātiki can now offer those living within the Halo free training on kauri dieback, weeds, predators and reporting; we can offer free rat traps and weed bags placed strategically in the community; a greater level of communication and support for street coordinators; and an online app for monitoring our progress towards our 2026 target.

Together we can make a huge difference for our natural environment – let's get started!

Kind regards,



Jo Knight, Chair, Pest Free Kaipātiki



How did we consult on the plan?

A draft plan was developed by Pest Free Kaipātiki after a series of workshops brainstorming what practical steps could be undertaken to go pest free by 2026.

The draft was presented to Auckland Council, The Kaipātiki Project, Kauri Park School, Pest Free Kaipātiki volunteers and tabled at the Kaipātiki Local Board public meeting on the 20th February 2019.

The draft plan was published on the Pest Free Kaipātiki website and distributed via our e-newsletter and facebook page.

900 flyers were hand delivered by volunteers to households within the halo inviting them to a public meeting at Kauri Park School on 2nd March 2019. The public meeting was well attended, with residents providing further feedback and collecting rat traps, bait and learning about pest plant species and kauri dieback.

The consultation opened on 5th February and closed on the 8th March. As a result of the consultation the following changes were made to the plan:

- The halo was extended to include all of Birkenhead College, Kia Ora Road, more of Rangatira Reserve, and households south of Taurus Cres and Hadfield Street.
- Argentine ants were included as a predator species.
- A specific strategy to manage large pest trees was included.
- Acknowledgement of the kauri protected area in Rangatira Reserve.
- Extension to the tree monitoring view shaft in Rangatira Reserve.
- Reference to the Regional Pest Management Plan.



Photos from the public meeting at Kauri Park School with local residents and Kaipātiki Local Board Members.

Introduction to Hadfield, Odin & Rangatira Halo

West of State Highway 1, on the North Shore near the Auckland Harbour Bridge, is the suburb of Beach Haven. In the southern part of Beach Haven there are three reserves of Hadfield Street, Odin Place and Rangatira.

The valley slopes of these reserves are home to native birds, plants and aquatic life. The glistening Waitemata Harbour is to the west, and the area also features some of New Zealand's unique kauri forest.

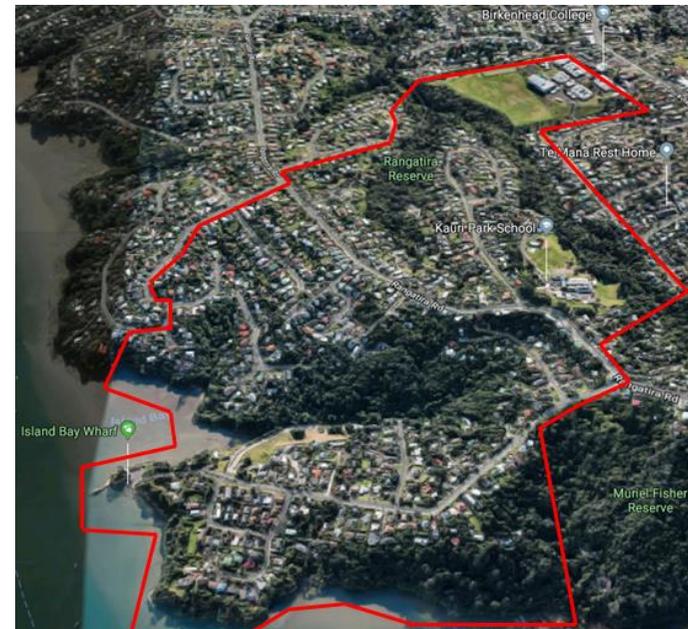
In 2018 it was discovered that some kauri in Kaipātiki Reserves were infected with kauri dieback disease (*Phytophthora agathidicida*) for which there is no known cure. Reserves with at risk kauri trees were closed as a precaution against further spread of the disease.

For many years residents around Hadfield and Odin Reserves have been clearing out weeds and setting predator lines to trap rats throughout the valley to protect native species and return native bird life.

Pest Free Kaipātiki (PFK) and the ecological consultants Te Ngahere developed an Ecological Restoration Plan for Hadfield and Odin Place Reserve in August 2018. The Restoration Plan identifies five ecological zones, making professional recommendations of actions within each zone. The Restoration Plan is referenced and used heavily to inform this Pest Free Community Plan. The Community Plan essentially delivers the actions of the Restoration Plan and the aspirations of the community within the entire Halo.

In December 2018, PFK was successful in obtaining a grant from Auckland Council to establish a Halo around these reserves and surrounding residential properties. This grant will enable us support community driven initiatives such as predator and weed control, with the aim to be pest free by 2026.

The Halo area covers over 113 hectares (1,130,000m²) along Brigantine Drive, Hadfield Street, Taurus Cres, through the reserve to Birkenhead College, Stott Ave, Gatman Street, through the bush and properties to Rangatira Road, Island Bay Road to the start of private properties along Muriel Fisher Reserve, west along the Coast, around Island Bay Wharf and back to Brigantine Drive.



What's already happening?

Volunteers: There are three active groups established in the area with around 50 households already participating. The Hadfield Facebook group has 234 members and has been actively involved in removing weeds and managing pests. Kauri Park School has taken part in ecological training in 2018 and Birkenhead College has established a volunteer group.

Council Contractors: Auckland Council Contractors have been actively engaged in the area to remove weed species and manage pest animal control lines. Recently Pest Free Kaipātiki has been given access to the future maintenance schedule to understand what activities and resources can assist the Halo.

Weeds: An analysis of the existing reserves were undertaken by Te Ngahere in late 2018 which outlines the general location of native forest, observations of weeds, native bush on private property and a map of weed distribution. While this is an extremely useful analysis for targeting activity within Hadfield and Odin Place Reserves this does not include much information about private property, cliff faces and location of all kauri within the Halo.

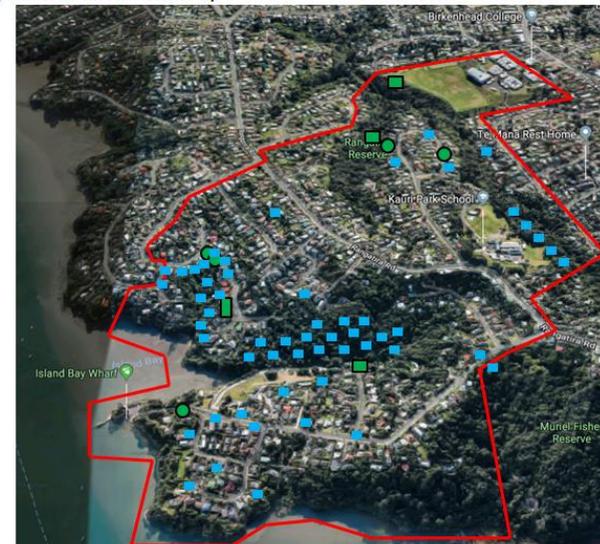
Predators: Chew card monitoring in 2017 and 2018 demonstrated a reduction in predator numbers where volunteers were trapping. In some areas the number of pests trapped has decreased showing a probable decrease in population.

Disease: There is no evidence of kauri dieback in this Halo, however, as the pathogen can stay dormant in soil and is a waterborne disease, kauri trees within this Halo are still at risk,

particularly if they are downslope from an infected tree. Myrtle rust disease has been found in Northland and is an airborne disease. There are no records of Myrtle rust within this Halo but if found would likely be found along the coast. Dutch elm disease has been found in Auckland but not within this Halo. Further investigation needs to be undertaken to identify what trees in the Halo could be susceptible to disease.

Aquatic: Minor testing of the Hadfield Stream and wetland areas was undertaken by Pest Free Kaipātiki but no aquatic pest species were found. A more detailed analysis is needed to get a clearer picture of the species make up of this stream.

Appendix 1: Current Volunteer Activity



Key	
■	>>36 existing ST2000 Rat Traps on private properties
■	x6 existing ST2000 Rat Traps in Hadfield Reserve
■	x17 existing ST2000 Rat Traps in Odin Reserve
●	Street Coordinators
■	Weeding & planting

What is required to achieve Pest Free by 2026?

Removing Pest Plants by 2026

An analysis of plants species within reserves were undertaken by Te Ngahere and Wildlands. This allowed us to identify what native and pest plant species are present. These have been incorporated into the action plan. However, as you will see from the map below there is significant land ownership within the halo in private ownership. Auckland Council has adopted the Regional Pest Management Plan and much of the Kaipatiki area is covered by rules that will be implemented in a phased manner requiring landowners to control several species. Auckland Council has identified there are more than fifty pest plant species in the Auckland Region <http://pestplants.aucklandcouncil.govt.nz/list-plants?name=>

Appendix 2: Weed Removal



Key	
	Private Land for Weed Removal
	Restricted Kauri Protected Area
	Annual Weed Bag Areas

Eradicate infrequent pest plant species

Eradication of less abundant weeds (outliers) that are highly threatening first is a strategically effective action, is typically easy, provides quick wins and prevents further weed infestation as other larger pest populations are removed:

- Register pest plants on EcoTrack App.
- Develop a fun kids and family's campaign to hunt down and destroy pest plants from back yards, private reserve boundaries and accessible parts of the reserve.
- Assessment of cliff faces is carried out to identify pest plants.
- Involve Auckland Council to ensure a consistent approach to this strategy.

Eradicate abundant pest plant species

The more abundant pest species such as Ginger, Tradescantia, Agapanthus and Jasmine will take longer to eradicate in the area:

- Register pest plants on EcoTrack App.
- Develop a consistent approach with Council, Contractors and Volunteers to remove large pest species and minimise duplication.
- While doing more invasive weed management all those involved will need to undertake kauri dieback training to ensure that further kauri are not infected.

Large Pest Trees	<p>Pest Free Kaipātiki requests that you register all pest species on the EcoTrack or report directly to Pest Free Kaipātiki. While there are techniques to removing large pest plants such as “drill and fill” or “cut and squirt” some larger trees can be expensive or dangerous to remove by yourself and you may need professional help.</p> <ul style="list-style-type: none"> ● Register pest plants on EcoTrack App. ● Ask your neighbour for assistance. ● Identify all large pest trees in the halo to arrange contractor removal.
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Resources:	<ul style="list-style-type: none"> ● Estimate 20 street coordinators ● 100 volunteers ● Weed Identification Cards ● Communications Campaign eg. flyers, street signs, regular meetings, volunteer calendar ● Kauri dieback training ● Volunteers monitor and report on EcoTrack ● Tool-shed - Tools / Sprays ● Weed Bags ● H&S Briefings / Signed forms ● Reporting process ● Annual Monitoring ● Council Contractors ● Additional Contractors
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Image 1: Tradescantia



Image 2: Agapanthus



Image 3: Jasmine

Removing Predators by 2026

The current pest lines run from the top of Hadfield Street Reserve to the middle of Odin Place Reserve along the waterways. There are also a number of private rat traps within the Halo that have also contributed to the low predator count.

The recent chew card study has shown that predator numbers are lower in areas where volunteers are actively trapping. It's estimated that there are now

Pest Free Kaipātiki now have access to free rat traps for Kaipātiki Residents within the Halo, these will be issued if Kaipātiki residents download the EcoTrack to record and report their pest trapping activities.

Appendix 3: Predator Capture



Key

■	≥36 existing ST2000 Rat Traps on private properties x6 existing ST2000 Rat Traps in Hadfield Reserve x17 existing ST2000 Rat Traps in Odin Reserve	■	x5 recommended new Timms Traps
■	x300 recommended new ST2000 Rat Traps for 1/3 households	■	x5 recommended new DOC 150
■	x5 recommended new DOC 200	■	x5 five year aquatic assessment

Rats	<ul style="list-style-type: none"> • Training provided to private landowners to install traps and monitor using eCoTrack • Traps placed ever 50m across the Halo to achieve blanket coverage. • Extend the Odin Place Reserve pest line to the edge of the reserve, knowing there are kauri within this part of the reserve. • Celebrating volunteers once a year.
Resources:	<ul style="list-style-type: none"> • Traps placed every 50m with an estimated need for 200 rat trap ST2000 (1 in 3 properties). Traps to be live across the reserves and private properties to have the desired impact to eradicate. • Volunteers monitor and report on EcoTrack • Bait Supply & Helpline • Active communication of predator blitzing • Chew card monitoring & reporting each year to show the reduction.



Image 4: A dead rat in Hillcrest posted on facebook by local resident Karin HG

Possums	<ul style="list-style-type: none"> With the large territory that Possums can cover PFK estimate that there would be a need for 19 Timms Traps placed strategically across the Halo that are monitored to assist in reducing possums in the Halo. Initially traps will be on a loan-out basis, deployed where sightings have been made Those that monitor and set these traps will monitor and report findings through Ecotrack, along with having successful training for kauri dieback if working in reserves.
<i>Resources:</i>	<ul style="list-style-type: none"> Estimated need for 19 timms traps. Volunteers monitor and report on EcoTrack Bait Supply & Helpline Active communication of predator blitzing Chew card monitoring & reporting each year to show the reduction.



Image 5: Possum

Stoats & Hedgehogs	<ul style="list-style-type: none"> PFK estimate that there would be a need for 6 DOC200's placed strategically across the Halo that are monitored to assist in reducing Stoats & Hedgehogs. Initially traps will be on a loan-out basis, deployed where sightings have been made Those that monitor and set these traps will need to monitor and report findings through Ecotrack, along with having successful training for kauri dieback if working in reserves.
<i>Resources:</i>	<ul style="list-style-type: none"> Estimated need for 6 DOC200's traps. Volunteers monitor and report on EcoTrack Bait Supply & Helpline Active communication of predator blitzing Chew card monitoring & reporting each year to show the reduction.



Image 6: Stoat



Image 7: Hedgehog with bird's egg

Weasels	<ul style="list-style-type: none"> • PFK estimate that there would be a need for 2 DOC150 traps placed strategically across the Halo that are monitored to assist in reducing Weasels (in any) in the Halo. • Initially traps will be on a loan-out basis, deployed where sightings have been made • Those that monitor and set these traps will need to monitor and report findings through Ecotrack, along with having successful training for kauri dieback if working in reserves.
<i>Resources:</i>	<ul style="list-style-type: none"> • Estimated need for 2 DOC150 traps. • Volunteers monitor and report on EcoTrack • Bait Supply & Helpline • Active communication of predator blitzing • Chew card monitoring & reporting each year to show the reduction.



Image 8: Weasel

Birds	<p>Throughout Auckland there are a number of pest birds such as Indian Ring Necks, Minors, Exotic Parrots like Rosella and Magpies that are introduced species that dominate territories and compete for scarce food source with New Zealand native bird species.</p> <p>While there are deterrents such as scarecrows, half-filled plastic bottles and CDs hung from trees there are not many alternative options available to stop, discourage or divert most bird species without discouraging native bird species.</p> <ul style="list-style-type: none"> • Undertaking an annual bird count in the area each year will assess the numbers of native and foreign bird species.
<i>Resources:</i>	<ul style="list-style-type: none"> • Volunteers monitor and report on EcoTrack



Image 9: Minor

<p>Cats</p>	<p>Cats have a large territorial area and cause damage to native birds and insects. It's currently unknown how many cats are located within the Halo but by requesting non-confidential information from a vets clinic Pest Free Kaipātiki should get a better understanding. Pest Free Kaipātiki also knows that the issue of cats can be a divisive topic within the community and believe that open dialogue is a good idea for the community for people to make their own choices. Households are becoming more aware of the impact that household cats have on wildlife and many conscious neighbours are choosing not to own a cat.</p> <p><i>Reduce harm</i></p> <ul style="list-style-type: none"> • Cats with bells on their collars can reduce harm to unsuspecting prey. <p><i>Educate</i></p> <ul style="list-style-type: none"> • Discuss with Auckland Council placing cameras at park entrances to monitor cats • Discuss with Auckland Council running a trial programme to track household cats using GPS monitoring. This was successfully achieved in Wellington to educate the public: http://cattracker.nz/wp-content/uploads/2017/12/Cat-Tracker-New-Zealand_report_Dec2017.pdf <p><i>Stop</i></p> <ul style="list-style-type: none"> • Partner with local vets to promote the neutering of cats, which is a common practise, to prevent the further breeding and
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<p><i>Resources:</i></p>	<p>proliferation of feral cats.</p> <ul style="list-style-type: none"> • Offering bells for cat collars to reduce harm • Identifying the estimated number of cats within the Halo by talking with vets and monitor annually • Encourage people to microchip and register their cat on NZ Companion Animal register https://www.animalregister.co.nz/ • Promote cat neutering services • Talk to Council about cameras at park entrances to monitor cats • Talk to Council and identify five households willing to take part in GPSing their cat for a period of a month.
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Image 10: Cat with lizard

Dogs	<ul style="list-style-type: none"> ● Discourage dogs from running through aquatic areas. ● Discourage dogs from entering ground nesting areas. ● Discourage dogs from entering into kauri areas to prevent the spread of kauri dieback.
<i>Resources:</i>	<ul style="list-style-type: none"> ● Submission to the Kaipātiki Local Board in support of dogs on leash around bush and aquatic areas within the Halo.



Image 11: Dog playing with birds nest

Fish	<ul style="list-style-type: none"> ● Undertake an assessment of the aquatic areas within the Halo to identify if there are any pest species. There are risks within urban areas for households to release goldfish, turtles and other fish into our waterways. ● If pest fish species are identified they can be caught and removed from the aquatic areas.
<i>Resources:</i>	<ul style="list-style-type: none"> ● Discuss with Auckland Council and volunteers what resources are need to monitor ● Volunteers monitor and report on EcoTrack

Wasps	<ul style="list-style-type: none"> Wasp nest in public reserves should be immediately reported to Auckland Council (09) 301 0101 It is the responsibility of property owner's to remove wasp nests. Best recommended at night time by puffing in a pyrethroid such as 'Dust 2 Dust' into their nest holes, or dousing with fly spray. Pest Free Kaipātiki can provide information about Vespex for a wide scale halo control of ground dwelling German and Common wasps if they become a problem.
<i>Resources:</i>	<ul style="list-style-type: none"> Promotional campaign and wasp testing (if required) between January through to April Vespex and Organic Traps made available through the Tool Shed Volunteers monitor and report on EcoTrack



Image 12: Organic trap for wasps

Argentine Ants	<p>Aggressive and invasive, Argentine ants pose a serious threat to New Zealand's natural environment. Found in Auckland, they can eliminate other species of ants, compete with native birds, lizards and insects for food and displace or kill them.</p> <ul style="list-style-type: none"> Argentine ants should be immediately reported to Auckland Council (09) 301 0101 checking potted plants, checking garden soil and bark, and building materials asking your retailer prior to purchasing goods whether they have Argentine ants
<i>Resources:</i>	<ul style="list-style-type: none"> Talk to MPI and Council about establishing rules at nurseries. Investigate the supply of bait for Argentine Ants.

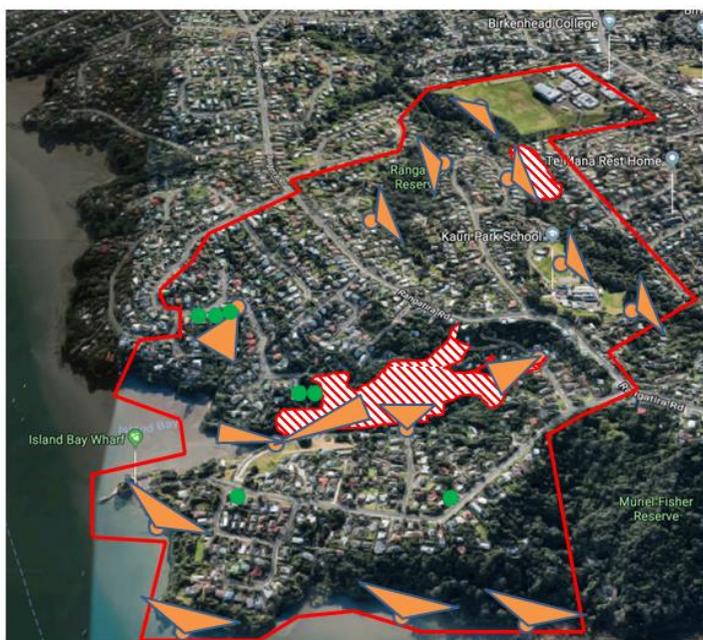


Image 13: Argentine Ants

Disease Control beyond 2026

Educating the public about the impact diseases have on our native forest is important to prevent further spreading. Kauri dieback is the biggest disease risk within the sensitive Halo ecological area. Due to the highly contagious waterborne disease causing kauri dieback special education and restrictions need to be put and kept in place for the foreseeable future. While other disease such as Myrtle Rust and Dutch Elm Disease requiring ongoing monitored.

Appendix 4: Disease Control



Key

	x7 Kauri Dieback Trained Volunteers		x15 Recommended annual visual assessment of Kauri trees and assessment of Myrtle Rust.
	Restricted Kauri Protected Area		

Kauri dieback

- Ongoing communication about not entering restricted areas and stopping the further spread of the disease will be ongoing.
- For those working in sensitive or restricted areas for weed removal and predator trapping will need to attend kauri dieback training and follow the set of approved guidelines.
- Promote to local residents with kauri on their property to take preventative measures to prevent the disease and report any concerns to Kauri Rescue.

Resources:

- Keep tracks closed
- Bi-annual training of new volunteers
- Ongoing awareness campaigns & promotion of Kauri Rescue
- Annual photo assessment of the canopy
- Provide local residents access to treatment



Image 14: Dead kauri tree

Who do we work with?

Neighbours

>1,200 residents

Community Groups

- Park Volunteers
- Island Bay Progressive League
- Kaipātiki Project
- Kauri Rescue
- Schools
- Rotary

Auckland Council

- Kaipātiki Local Board
- Biosecurity Team
- Biodiversity Team
- Parks Team
- RIMU

Government

- MPI
- NZ Police

Contractors

- Wildlands
- Te Ngahere
- Tree Scape

Utilities

- Vector
- Watercare



Ministry for Primary Industries
Manatū Ahu Matua



Birkenhead Licensing Trust
Investing in our community



How do we engage young people?

Schools Engagement

The Kaipātiki Project & Pest Free Kaipātiki engaged with Kauri Park School in 2018 providing an environmental education programme for teachers and the ground keeper. It is intent to take the learnings from last year and provide additional training in 2019 for teachers and ground keepers for Kauri Park School. As the school is inside the Halo, we intent supporting their educational environmental initiatives and working along-side the grounds keeper to ensure we can support their active participant within the Halo.

Student Gamification

To get students activity engaged in the Halo project we are looking to gamify the experience. As there are over 50 pest species likely to be within the Halo it would be difficult to communicate all species to be eradicated by 2026.

Most children in New Zealand from the 1920s through to today collected playing cards. In 2003 the US Department of Defence created playing cards with a list of the top 54 targets during the Iraqi war. Pest Free Kaipātiki is investigating using the same concept by producing playing cards listing high-profile weeds, predators and diseases. Plus we would look to gamify it like Pokemon Go but with characters such as gardeners, ecologists and give out prizes as students reach different levels scoring points by removing pest species.

Auckland Council has provided us with a list of major pest species to eradicate and the playing cards would assist us with running targeted communication campaigns within the halo throughout the year to blitz species cards (eg. Level 1 includes 10 major pest species). This would also provide education for young people and families at the same time. Once a pest species is eradicated from a private property this can be loaded onto EcoTrack and promoted through social media. It is a campaign that can be branded for each community Halo and has longevity until the area is pest free.

There may be options to seek commercial sponsorship for the production and distribution of the cards.



Image 15: Example of playing cards

What resources are available in the Halo?

Get Involved

	Join Pest Free Kaipātiki on facebook: www.facebook.com/groups/PestFreeKaipātiki/
	Complete a volunteer form online to receive our newsletter: www.pestfreeKaipātiki.org.nz/contact-us
	Join an event near you: https://www.pestfreeKaipātiki.org.nz/calendar-for-Kaipātiki-restoration

Attend Training

Kauri dieback	Learn about the Kaipātiki Standard Operating Procedures for kauri dieback and become certified to enter restricted areas for weed and predator management.
Weed	Learn about different weed species, the impact they have on our natural eco system and how you can remove and safely dispose of weeds in Kaipātiki.
Predator	Learn about what predators' impact our natural environment and what steps you can do to stop, divert or remove them.
EcoTrack & iNaturalist	It's important that we track progress and allocate volunteer resourcing. Join us for this training and show how you contribute to pest free Kaipātiki.

Get Resources

Tools	Every second Saturday of the month we have a drop in session at our "Tool Shed". Drop by to borrow weeding tools and safety gear.
Free Traps Free Bait	Every resident who lives within the Halo can access free trap if they are willing to be actively involved in predator blitzing and reporting back on EcoTrack
Weed Bags	Weed bags are available for street events or on long-term loan for your backyard.
Helpline	Pest Free Kaipātiki can assist you with any predator trapping issues
Tree Planting	In partnership with Auckland Council and the Kaipātiki Project we can arrange trees every season.
Educational information	Find the best strategy for controlling pests: https://www.pestfreeKaipātiki.org.nz/resource

Report

	This app allows us to keep track of nature, record your encounters with other organisms and maintain life lists. Please download the app: https://www.inaturalist.org/ and look at our kauri mapping project
	This app enables local communities to track a diverse, comprehensive range of ecological and conservation activities. Please download the app: https://ecotrack.nz/

Annual Calendar

January	February	March	April	May	June	July	August	September	October	November	December
Training Dieback Predator App			Training Weed Aquatic		Training Dieback Predator App			Training Weed Aquatic	Community Celebration		
	Weed Bag Street Events				Weed Bag Street Events				Weed Bag Street Events		
	Predator Traps Blitz Bait		Predator Traps Blitz Bait		Planting Street Events	Planting Street Events	Predator Traps Blitz Bait			Predator Traps Blitz Bait	
						Counts Trees Predator Cats Birds Aquatic					

Toolshed
 Open 2nd and 4th Saturday
 of each month

Contact Us

The team at Pest Free Kaipatiki are eager to help you achieve a pest free environment by 2026.

Please contact our team direct and get involved with local volunteers.

Visit our website www.pestfreekaipatiki.org.nz

Join us on facebook www.facebook.com/pestfreekaipatiki

Or email us at enquiries@pestfreeKaipātiki.org.nz

Appendix

Appendix 1: Current Volunteer Activity

Appendix 2: Weed Removal Plan

Appendix 3: Predator Capture

Appendix 4: Disease Control

Appendix 5: Ecological Management Plan for Rangatira Reserve, Beach Haven by Wildlands

Appendix 6: Hadfield Street Reserve and Odin Place Reserve by Te Ngahere

Appendix 7: Auckland Regional Pest Management Plan

www.pestfreeKaipātiki.org.nz



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●	Street Coordinators		

Appendix 2: Weed Removal



Key

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	Annual Weed Bag Areas		

Appendix 3: Predator Capture



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	x5 recommended new DOC 200		x5 five year aquatic assessment

Appendix 4: Disease Control



Key

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	Restricted Kauri Protected Area		

Appendix 5: Ecological Management Plan for Rangatira Reserve, Beach Haven by Wildlands

<https://drive.google.com/drive/u/3/search?q=Wildlands%20Plan>

Appendix 6: Hadfield Street Reserve and Odin Place Reserve by Te Ngahere

To be included

Appendix 7: Auckland Regional Pest Management Plan

<https://www.aucklandcouncil.govt.nz/have-your-say/topics-you-can-have-your-say-on/regional-pest-management-plan/Documents/auckland-regional-pest-management-plan-2019-2029.pdf>