

**DRAFT**

# **Hadfield, Odin & Rangatira Halo**

Pest Free Community Plan  
2019 to 2026



[www.pestfreekaipatiki.org.nz](http://www.pestfreekaipatiki.org.nz)

**DRAFT PLAN**



## Message from the Chair

It is with great pleasure and some excitement that I introduce the first Halo Plan for the Kaipatiki 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 Kaipatiki 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 Kaipatiki 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 Kaipatiki 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 Kaipatiki



## Introduction to Hadfield, Odin & Rangatira Halo



Immediately 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 half of 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 Kauri trees were closed as a precaution against further spread of the disease.

For many years residents near the 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.

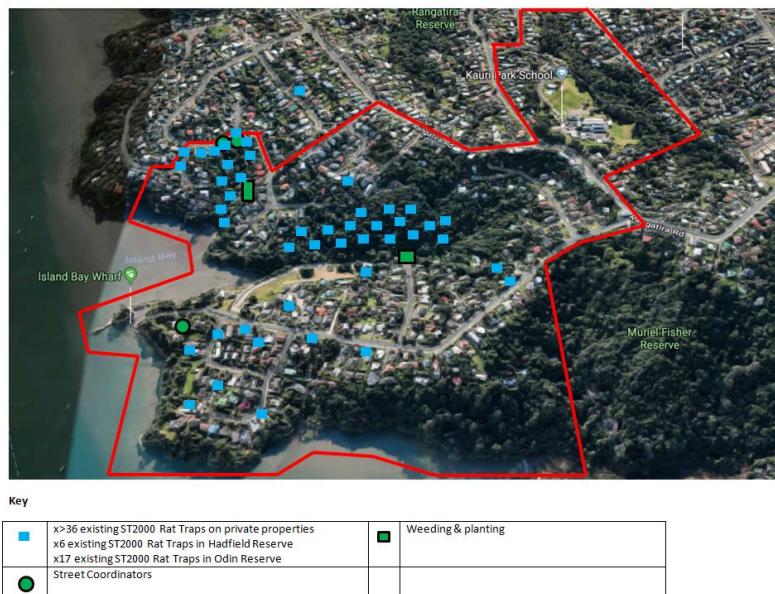
Pest Free Kaipatiki (PFK) and the ecological consultants Te Ngahere developed an Ecological Restoration Plan for Hadfield and Odin Place Reserve in August 2018. The Plan identifies five ecological zones, making professional recommendations of actions within each zone. The Ecological Plan is referenced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

The Halo area covers over 68 hectares (680,000m<sup>2</sup>) along Brigantine Drive, Hadfield Street, Mariners View Road, Rangatira Road, Kia Ora Road and crosses back over the bush to 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?

Appendix 1: Current Volunteer Activity



**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.

**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 Kaipatiki 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 nothing within the 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 Kaipatiki 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.



# What is required to achieve Pest Free by 2026?

Appendix 2: Weed Removal



## Removing Pest Plants by 2026

An analysis of plants species present within the reserve was undertaken by Te Ngahere in 2018. This allowed us to identify what native and pest plant species were present and distribution of weeds species within the reserve as well as possible incursion sites. A full list of pest plant observations is available in the report with their recommendations on removal. These have been incorporated into the action plan.

Auckland Council has identified there are more than fifty pest plant species in the Auckland Region

<http://pestplants.aucklandcouncil.govt.nz/list-plants?name=>

Resources:

- 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
- Blitz period each year
- Tool-shed - Tools / Sprays
- Weed Bags
- H&S Briefings / Signed forms
- Reporting process
- Annual Monitoring
- Council Contracts
- Additional Contractors



Image 1: Tradescantia

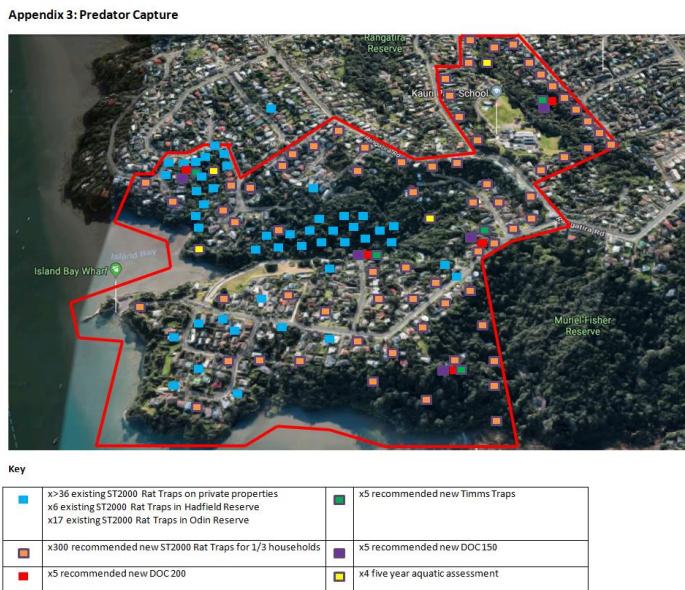


Image 2: Agapanthus



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.

To date, volunteers have been successful in reducing the number of rats identified in the recent chew card study. However, it's unknown how many predator traps are located around Rangatira Reserve and the wider community.

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



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

<b>Rats</b>	<ul style="list-style-type: none"> <li>Training provided to private landowners to install traps and monitor using eCoTrack</li> <li>Traps placed every 50m across the Halo to achieve blanket coverage.</li> <li>Extend the Odin Place Reserve pest line to the edge of the reserve, knowing there are Kauri within this part of the reserve.</li> <li>Celebrating volunteers once a year.</li> </ul>
<b>Resources:</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Volunteers monitor and report on eCoTrack</li> <li>Bait Supply &amp; Helpline</li> <li>Active communication of predator blitzing</li> <li>Chew card monitoring &amp; reporting each year to show the reduction.</li> </ul>

<b>Possums</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Those that monitor and set these traps need to monitor and report findings along having successful training for Kauri Dieback.</li> </ul>
<b>Resources:</b>	<ul style="list-style-type: none"> <li>Estimated need for 19 timms traps.</li> <li>Volunteers monitor and report on eCoTrack</li> <li>Bait Supply &amp; Helpline</li> <li>Active communication of predator blitzing</li> <li>Chew card monitoring &amp; reporting each year to show the reduction.</li> </ul>



**Image 5:** Possum

<b>Stoats &amp; Hedgehogs</b>	<ul style="list-style-type: none"> <li>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 &amp; Hedgehogs.</li> <li>Those that monitor and set these traps need to monitor and report findings along having successful training for Kauri Dieback.</li> </ul>
<b>Resources:</b>	<ul style="list-style-type: none"> <li>Estimated need for 6 DOC200's traps.</li> <li>Volunteers monitor and report on eCoTrack</li> <li>Bait Supply &amp; Helpline</li> <li>Active communication of predator blitzing</li> <li>Chew card monitoring &amp; reporting each year to show the reduction.</li> </ul>



**Image 6:** Stoat



**Image 7:** Hedgehog with bird's egg



Weasels	<ul style="list-style-type: none"> <li>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.</li> <li>Those that monitor and set these traps need to monitor and report findings along having successful training for Kauri Dieback.</li> </ul>
Resources:	<ul style="list-style-type: none"> <li>Estimated need for 2 DOC150 traps.</li> <li>Volunteers monitor and report on eCoTrack</li> <li>Bait Supply &amp; Helpline</li> <li>Active communication of predator blitzing</li> <li>Chew card monitoring &amp; reporting each year to show the reduction.</li> </ul>
	<p><b>Birds</b></p> <p>Throughout Auckland there are a number of pest birds such as Minors, 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"> <li>Undertaking an annual bird count in the area each year will assess the numbers of native and foreign bird species.</li> </ul> <p>Resources:</p> <ul style="list-style-type: none"> <li>Volunteers monitor and report on eCoTrack</li> </ul>



**Image 8:** Weasel



**Image 9:** Mynah

<b>Cats</b>	<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 Kaipatiki should get a better understanding. Pest Free Kaipatiki 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"> <li>• Cats with bells on their collars can reduce harm to unsuspecting prey.</li> </ul> <p><i>Educate</i></p> <ul style="list-style-type: none"> <li>• Discuss with Auckland Council placing cameras at park entrances to monitor cats</li> <li>• 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: <a href="http://cattracker.nz/wp-content/uploads/2017/12/Cat-Tracker-New-Zealand_report_Dec2017.pdf">http://cattracker.nz/wp-content/uploads/2017/12/Cat-Tracker-New-Zealand_report_Dec2017.pdf</a></li> </ul> <p><i>Stop</i></p> <ul style="list-style-type: none"> <li>• Partner with local vets to promote the neutering of cats, which is a common practise, to prevent the further breeding and proliferation of feral cats.</li> </ul>	<p><b>Resources:</b></p> <ul style="list-style-type: none"> <li>• Offering bells for cat collars to reduce harm</li> <li>• Identifying the estimated number of cats within the Halo by talking with vets and monitor annually</li> <li>• Promote cat neutering services</li> <li>• Talk to Council about cameras at park entrances to monitor cats</li> <li>• Talk to Council and identify five households willing to take part in GPSing their cat for a period of a month.</li> </ul>
-------------	---	---



**Image 10:** Cat with lizard

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



**Image 11:** Dog playing with birds nest

<b>Fish</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• If fish pest fish species are identified they can be caught and removed from the aquatic areas.</li> </ul>
<i>Resources:</i>	<ul style="list-style-type: none"> <li>• Discuss with Auckland Council and</li> </ul>

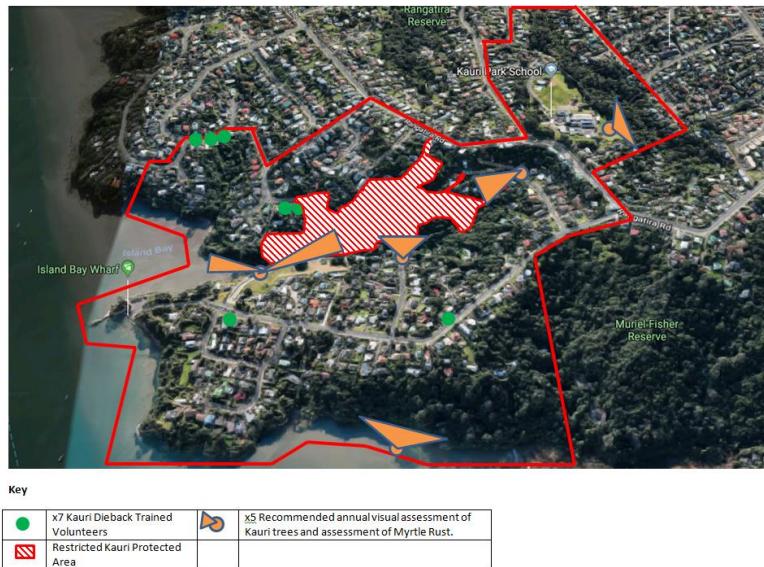
	<ul style="list-style-type: none"> <li>volunteers what resources are need to monitor</li> <li>• Volunteers monitor and report on eCoTrack</li> </ul>
<b>Wasps</b>	<ul style="list-style-type: none"> <li>• Wasp nest in public reserves should be immediately reported to Auckland Council (09) 301 0101</li> <li>• 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.</li> <li>• Pest Free Kaipatiki can provide information about VespeX for a wide scale halo control of ground dwelling German and Common wasps if they become a problem.</li> </ul>



**Image 12:** Organic trap for wasps

## Disease Control beyond 2026

Appendix 4: Disease Control



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.

### 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 9:** Dead Kauri Tree

## Who do we work with?

### Neighbours

Land owners >300

### Community Groups

Park Volunteers  
Island Bay Progressive League  
Kaipatiki Project  
Kauri Rescue  
Schools  
Rotary

### Auckland Council

Kaipatiki Local Board  
Biosecurity Team  
Biodiversity Team  
Parks Team

### Government

MPI  
NZ Police

### Contractors

Wildlands  
Te Ngahere  
Tree Scape  
Vector  
Watercare

[www.pestfreekaipatiki.org.nz](http://www.pestfreekaipatiki.org.nz)

DRAFT PLAN



## How do we engage young people?

### Schools Engagement

The Kaipatiki Project & Pest Free Kaipatiki 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 Kaipatiki 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 10: Level 4 Ecologist

## What resources are available in the Halo?

### Get Involved

	Join Pest Free Kaipatiki on facebook: <a href="https://www.facebook.com/groups/PestFreeKaipatiki/">www.facebook.com/groups/PestFreeKaipatiki/</a>
	Complete a volunteer form online to receive our newsletter: <a href="https://www.pestfreekaipatiki.org.nz/contact-us">www.pestfreekaipatiki.org.nz/contact-us</a>
	Join an event near you: <a href="https://www.pestfreekaipatiki.org.nz/calendar-for-kaipatiki-restoration">https://www.pestfreekaipatiki.org.nz/calendar-for-kaipatiki-restoration</a>

### Attend Training

Kauri dieback	Learn about the Kaipatiki 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 Kaipatiki.
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 Kaipatiki.

### 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 Kaipatiki can assist you with any predator trapping issues
Tree Planting	In partnership with Auckland Council and the Kaipatiki Project we can arrange trees every season.
Educational information	Find the best strategy for controlling pests: <a href="https://www.pestfreekaipatiki.org.nz/resources">https://www.pestfreekaipatiki.org.nz/resources</a>

### Report

	This app allows us to keep track of nature, record your encounters with other organisms and maintain life lists. Please download the app: <a href="https://www.inaturalist.org/">https://www.inaturalist.org/</a>
	This app enables local communities to track a diverse, comprehensive range of ecological and conservation activities. Please download the app: <a href="https://ecotrack.nz/">https://ecotrack.nz/</a>

## 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	Predator Traps Blitz Bait	Planting Street Events	Planting Street Events	Predator Traps Blitz Bait	Counts Trees Predator Cats Birds Aquatic	Predator Traps Blitz Bait				
<b>Tool Shed</b> Open Second Saturday of each month											

## **Seeking Feedback**

This draft document has been developed by Pest Free Kaipatiki to be used for consulting the local community.

**Please send your feedback to us by 8<sup>th</sup> March 2019 to [enquiries@pestfreekaipatiki.org.nz](mailto:enquiries@pestfreekaipatiki.org.nz)**

To get involved and for more information please contact:

Rob Thomas, Volunteer Coordinator, Pest Free Kaipatiki  
[Rob.Thomas@pestfreekaipatiki.org.nz](mailto:Rob.Thomas@pestfreekaipatiki.org.nz) +64 21704423

## **Appendix**

Appendix 1: Current Volunteer Activity

Appendix 2: Weed Removal Plan

Appendix 3: Predator Capture

Appendix 4: Disease Control

## Appendix 1: Current Volunteer Activity



### Key

<span style="color: blue;">■</span>	x>36 existing ST2000 Rat Traps on private properties x6 existing ST2000 Rat Traps in Hadfield Reserve x17 existing ST2000 Rat Traps in Odin Reserve	<span style="color: green;">■</span>	Weeding & planting
<span style="color: green;">●</span>	Street Coordinators		

## Appendix 2: Weed Removal



### Key

	Private Land for Weed Removal		Restricted Kauri Protected Area
	Proposed Weed Bag Areas		

**Appendix 3: Predator Capture**



**Key**

<span style="color: blue;">■</span>	x>36 existing ST2000 Rat Traps on private properties x6 existing ST2000 Rat Traps in Hadfield Reserve x17 existing ST2000 Rat Traps in Odin Reserve	<span style="color: purple;">■</span>	x5 recommended new Timms Traps
<span style="color: orange;">■</span>	x300 recommended new ST2000 Rat Traps for 1/3 households	<span style="color: purple;">■</span>	x5 recommended new DOC 150
<span style="color: red;">■</span>	x5 recommended new DOC 200	<span style="color: yellow;">■</span>	x4 five year aquatic assessment

#### Appendix 4: Disease Control



#### Key

<span style="color: green;">●</span>	x7 Kauri Dieback Trained Volunteers	<span style="color: orange;">➡</span>	x5 Recommended annual visual assessment of Kauri trees and assessment of Myrtle Rust.
<span style="color: red;">■</span>	Restricted Kauri Protected Area		