

CREATED BY

**PEST FREE
KAIPĀTIKI**
RESTORATION SOCIETY



LE ROYS & HINEMOA HALO COMMUNITY PLAN

2021 - 2026



KIA ORA RAWA ATU TO OUR KEY SPONSORS:



PHOTO CREDITS

Front cover: Lynn Salmon

INTRODUCTION

WHAT IS A HALO?

Ecological Halos protect our native wildlife by maintaining and restoring our native ecosystems and minimising the risk of re-invasion from pest species. They are made up of the community of people living around special natural features or reserves who act as kaitiaki (guardians) by:

- Controlling pest plants and animals on their properties around the reserve
- Assisting with the control of pest plants and animals within the reserve
- Helping with the management of pathogens such as kauri dieback disease
- Planting native plants on their properties and within the reserve

WHAT ROLE DOES PEST FREE KAIPĀTIKI PLAY?

Pest Free Kaipātiki (PFK) provide resources and advice to the community to assist with the restoration and protection of reserves. PFK are actively involved in the conservation of Auckland's native wildlife, but the scale of the problem posed by invasive mammalian predators and environmental weeds requires a community effort. This is why we focus on empowering the community to help conserve our wildlife. To assist, we create management plans such as this one, we provide the tools and resources to do the work through our community tool shed and our restoration advisers provide expert advice where it is needed.

A MESSAGE FROM OUR CHAIR



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.

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.

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

Regards,

LE ROYS AND HINEMOA HALO BACKGROUND

The Le Roys & Hinemoa Halo includes the Le Roys Bush and Hinemoa Park Reserves as well as a number of smaller reserves such as Needles Eye. The entire area is a “buffer zone” under the Auckland Council’s RPMP - this means that property owners and occupants are required to control six high priority environmental weeds including moth plant, wild ginger and woolly nightshade.

The area has an active volunteer predator control programme which has been running for over 12 years and a kauri dieback protection programme which started around 2015, which are managed by Beyond the Fence. Friends of Le Roys Bush and Beyond the Fence work together to restore and protect the forest in Le Roys Bush and on neighbouring properties.

There have been some significant achievements by these groups already in the restoration of these area. Hundreds of crack willow and pampas grass were removed from the wetlands, and extensive stands of invasive tree species have been cut. Over 1500 native plants have been replanted in the area. Kauri dieback cleaning stations have been set up around the reserves and are maintained by volunteers. Massive headway has also been achieved in reducing numbers of possums and rats in the reserves.

The local volunteers are a social bunch. Beyond the Fence have a ‘Wine and Weeds’ social event to discuss pest control over a glass or two. Regular working bees are also often followed by coffee and cake at a local cafe. New volunteers are always welcome.

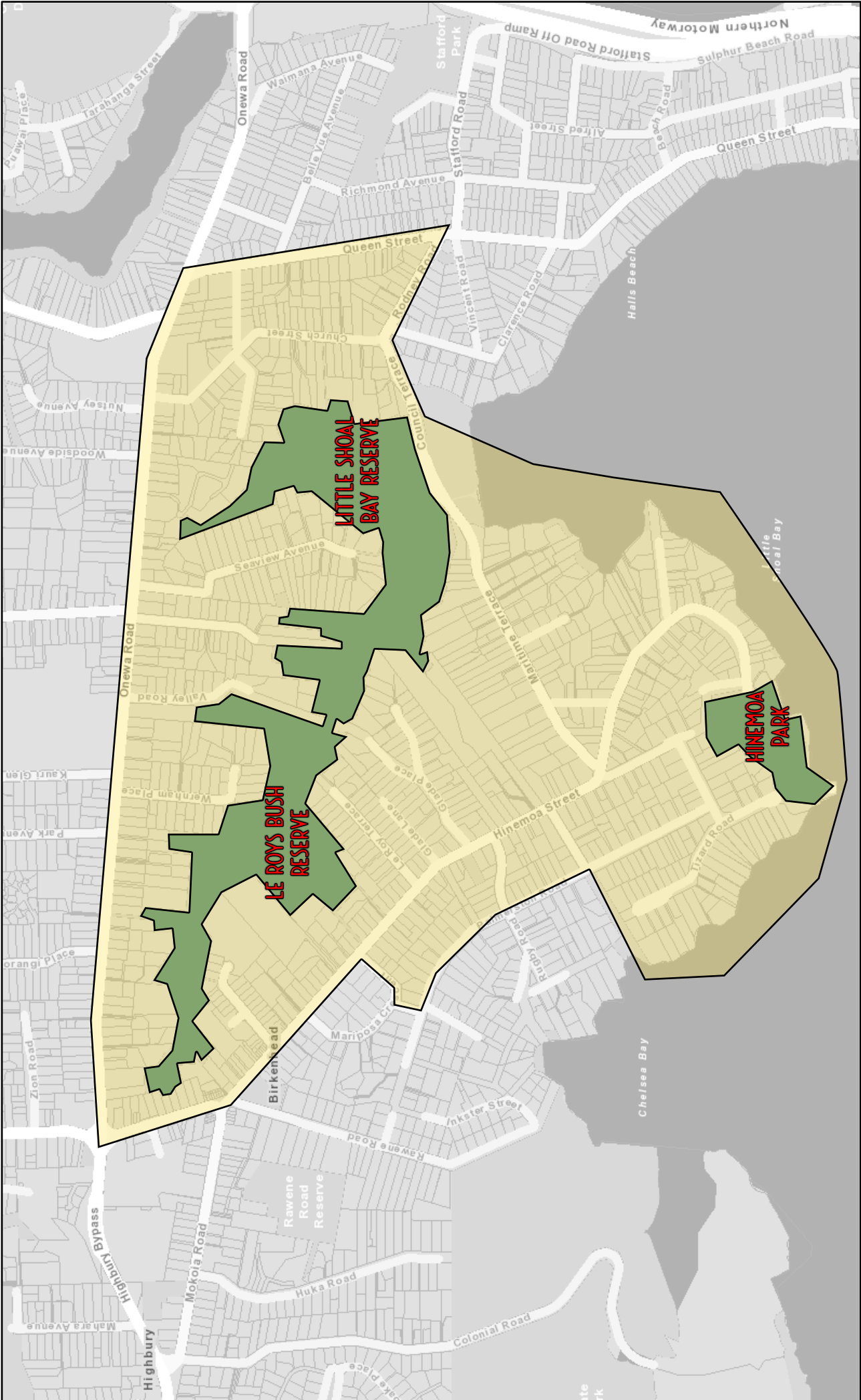
For more information about the reserves visit their webpages:

Le Roys Bush: leroysbush.nz

Hinemoa Park: facebook.com/groups/HinemoaPark



HALO MAP



PEST ANIMALS

GENERAL STRATEGY

PLACE CONTROL DEVICES

Predators can be maintained at low numbers if an entire ring of traps or bait stations could be placed on private property around the reserves in the Halo. Ideally one in every three properties around the reserve will have a rat trap. In the reserve itself trap lines should be placed at 50 metre intervals, and away from kauri trees to avoid risk of infection with kauri dieback. Rat traps and bait stations can be deployed all year round or within pulses to increase cost effectiveness. Timms and DOC200 traps can be deployed immediately and left out year round.

TRAP AND BAIT RATS IN PULSES

Rat traps and bait stations can be deployed and baited synchronously in pulses to increase their effectiveness at controlling rat populations. Pulses are conducted four times a year in February, April, August and November (see Annual Calendar, page 9). To learn more about predator pulses visit: www.pestfreekaipatiki.org.nz/predatorcontrol.

MONITOR PROGRESS AND RESPOND

Use chew-cards, tracking tunnels and catch rates to monitor the distribution and trend in populations of mammalian pests. Chew cards and tracking tunnels can be helpful to identify when trap-shy predators are still present. Trapping effort can be increased in different areas across the Halo in response to the results. To learn more about how to monitor pests with these methods visit: www.pestfreekaipatiki.org.nz/predatormonitoring.

RECORD TRAP RESULTS ON ECOTRACK

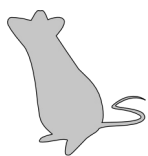
Record all trap results in EcoTrack. This allows PFK to monitor and analyze the data in Verran Gully Halo and across Kaipātiki as a whole. EcoTrack can be downloaded from the Google Play Store or the Apple Store, or by visiting the EcoTrack home page: www.ecotrack.nz. Instructions on how to use EcoTrack can also be found on PFK's website: www.pestfreekaipatiki.org.nz/ecotrack.

REPORT WASPS AND ANTS

Wasp nests and Argentine ants should be immediately reported to Auckland Council when found on 09-301-0101. Reserves should be surveyed annually for wasps nests to determine their presence and extent. When wasps occur on private property it is the responsibility of the property owner to remove them. Pyrethroid dust is recommended for German and common wasps, fly spray is recommended for paper wasps. If you find German wasps on private property we might be able to assist with their removal, contact PFK by visiting www.pestfreekaipatiki.org.nz/contactus.

PEST TYPES

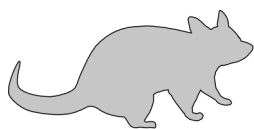
RATS



Control with:
T-Rex traps/bait stations
Monitor with:
Chew cards/catch rate
Record:
Trap catches/bait station visits in EcoTrack

Trap or bait lines should be placed every 50m within reserves, covering the entire reserve. One in three properties around the reserves should also have a rat trap or bait station.

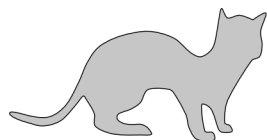
POSSUMS



Control with:
Timms traps
Monitor with:
Chew cards/catch rate
Record:
Trap catches in EcoTrack

Timms traps should be deployed immediately in any area when possums are sighted. Residents can also maintain traps on their property year-round if wish to. Traps are available to be borrowed from PFK.

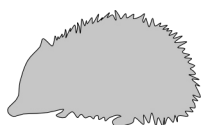
STOATS



Control with:
DOC 200 traps
Monitor with:
Catch rate
Record:
Trap catches in EcoTrack

DOC 200s should be deployed immediately in any area when stoats are sighted. Residents can also maintain traps on their property year-round if wish to. Traps and stoat lure are available to be borrowed from PFK.

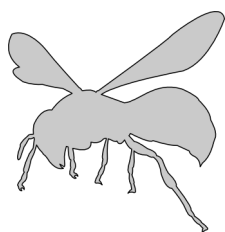
HEDGEHOGS



Control with:
DOC 200 traps
Monitor with:
Catch rate
Record:
Trap catches in EcoTrack

DOC 200s can be deployed to catch hedgehogs when they are sighted. Residents can also maintain traps on their property year-round if wish to. Traps are available to be borrowed from PFK.

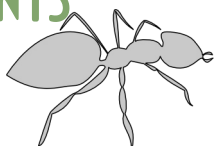
WASPS



Control with:
Pyrethroid dust/fly spray
Monitor with:
Annual survey in January and ad-hoc sightings
Report:
09-301-0101

Wasp nest in public reserves should be immediately reported to Auckland Council. On private property the recommended method is a pyrethroid in their nest holes (for german and common wasps), or dousing with fly spray (paper wasps). Annual monitoring around January should be undertaken to see if wasp control is required, which is undertaken with VESPEX.

ARGENTINE ANTS



Control with:
-
Monitor with:
Ad-hoc sightings
Report:
09-301-0101

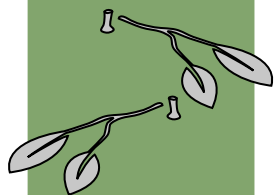
Argentine ants should be immediately reported to Auckland Council on 09-301-0101. Check potted plants, garden soil and bark, and building materials.

PEST PLANTS

GENERAL STRATEGY

ERADICATE PRIORITY PEST PLANTS

Ecologically damaging and highly invasive pest plants should be eradicated as quickly as possible followed by less invasive pest plants. Ten of the most invasive species found in Auckland's reserves are shown to the right. Infrequent species should be removed first also before they become established. For specific information on which species are present in the Kauri Glen Halo consult with experienced volunteers who have first-hand knowledge of the park.



CONTROL FREQUENCY AND REGROWTH

Whenever any control work is done, it should be checked every 3 months and repeated if necessary up to 3 times to ensure eradication of persistent plants. If organic control methods are used then it might be necessary to check more frequently. Seedlings of pests plants that have re-invaded the reserve can be quickly removed again before they become established.



REPLANT NATIVES IN WINTER

Native species can be replanted during winter to increase their likelihood of survival and establishment. If the area is weed free then natural regeneration of the bush will occur, but areas must be checked to ensure weeds are not re-invading.



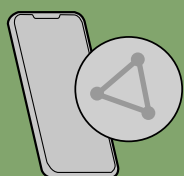
REMOVE LARGE TREES

PFK encourages large tree species to be removed last. When large trees are removed they open up the canopy and can encourage growth of pest plants below. Therefore it is best to remove these species when most other pests have been removed, allowing natives to grow in their place.



REPORT AND RECORD ON ECOTRACK

Report any new pest plant observations on EcoTrack, and record control work on EcoTrack. This allows PFK to monitor progress and assist with controlling them. EcoTrack can be downloaded from the Google Play Store or the Apple Store, or by visiting the EcoTrack home page: www.ecotrack.nz



PRIORITY PEST PLANTS

The plants below are some of the most invasive, ecologically damaging and common species in Auckland. These should be controlled asap. All reserves have a different composition of pest plants including ones not listed here. For specific information about individual reserves consult with the local bush group. For detailed control instructions visit our website www.pestfreekaipatiki.org.nz/pest-plant-resources.



MOTH PLANT

A perennial vine that grows up and strangles other plants. Has small white and pink flowers and large green pods. Remove pods immediately if seen.



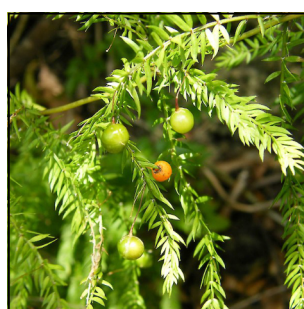
GINGER

Ginger spreads rapidly in the bush and prevents other species from growing. It develops large root systems that store nutrients that inhibit other plants from growing.



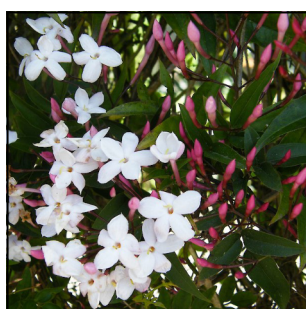
WOLLY NIGHTSHADE

A small shrub or tree with hair leaves and yellow or green berries. Some people have allergic reactions to the hairs.



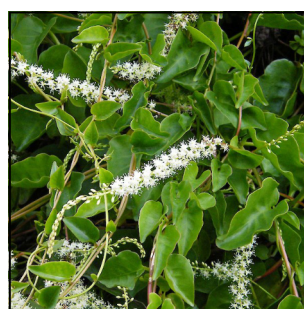
CLIMBING ASPARAGUS

A persistent vine that has extensive roots and tubers from which it regrows. Tubers need to be extracted or multiple rounds of herbicide are usually required.



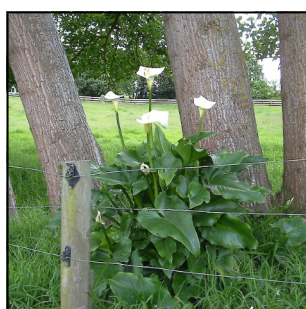
JASMINE

Fragrant smelling vine with small white flowers and pink buds. Extremely persistent and can require multiple rounds of control.



MADEIRA VINE

A creeping vine that grows in other plants. It has warty nodules from which it can regrow. It has large heart-shaped fleshy leaves and long white inflorescences.



ARUM LILY

Large tubular white flower and large fleshy heart-shaped leaves. Thrives in areas where water accumulates such as gullies and ditches. It is poisonous and livestock will avoid it.



ELAEGNUS

A dense, tough shrub. It is easily identified by its long alternate spaced leaves that have a bronze underside.



TREE PRIVET

Can grow into large trees (>10m tall) but smaller trees (<5m) are common. Small white flowers produce pollen that can aggravate respiratory issues such as asthma and hay-fever.



MONTBRETIA

A short (<50cm) long leaved plant, with bright yellow, orange and red flowers. It has extensive root systems and will persist if they are not removed.

KAURI DIEBACK

GENERAL STRATEGY

ALWAYS FOLLOW KAURI HYGIENE RULES

Before going to a reserve clean shoes thoroughly by scrubbing off all dirt. If you are unable to do this at home make sure you scrub shoes before entering the reserve. Then apply sterigene at the cleaning stations. Clean shoes and spray with sterigene after leaving reserves also to reduce the likelihood of carrying kauri dieback spores out of the reserve.



PLAN WORKING BEES AWAY FROM KAURI

All working bees should be conducted well away from kauri trees to reduce the chances of walking on infected roots or spreading the infection to other trees. If there is work you would like to do close to kauri, please consult PFK for advice before continuing.



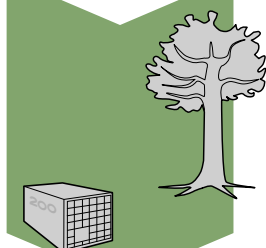
TRAIN NEW VOLUNTEERS IN KAURI CARE

New volunteers that wish to be involved in the restoration of the reserve can be trained in kauri care. PFK runs free workshops in kauri care that volunteers can attend. Workshop times and availability can be found by visiting: www.pestfreekaipatiki.org.nz/kauri-dieback-1.



PLACE TRAP-LINES AROUND KAURI ROOT ZONES

Any new trap-lines that are placed within the reserves should be located away from kauri so that checking them does not require walking over kauri roots.




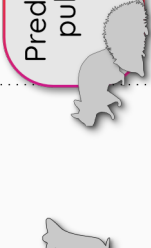




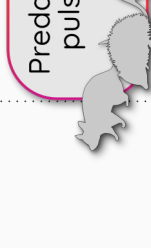



MONITOR CLEANING STATIONS

Always check whether cleaning stations have an adequate supply of sterigene when working in the reserves. Individual cleaning stations can be allocated to willing volunteers to 'adopt', who can service at regular intervals.



ANNUAL CALENDAR

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
 Wasp survey						 Chew card survey					
Timms traps, and DOC 200s can be deployed year round in response to sightings											
 Predator pulse	 Predator pulse	 Predator pulse	 Predator pulse				 Predator pulse	 Predator pulse	 Predator pulse		
Native species planting											
Removal and eradication of exotic species											
 Annual review and celebration											

Monitoring activities

Trapping activities

Planting and weeding activities

Community activities

INFORMATION ABOUT CONTROLLING PREDATORS

It is very important to pre-feed traps and check bait to make sure it is fresh otherwise this can have negative results. For more information on trapping and how predator pulses work please visit PFK's website: www.pestfreekaipatiki.org.nz/predatorcontrol.



/pestfreekaipatiki



WWW.PESTFREEKAIPATIKI.ORG.NZ