

CREATED BY

**PEST FREE
KAIPĀTIKI**
RESTORATION SOCIETY



VERRAN GULLY HALO COMMUNITY PLAN

2021 - 2026



KIA ORA RAWA ATU TO OUR KEY SPONSORS:



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 created by a community of people living around a reserve who act as kaitiaki for that reserve 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 advisors provide expert advice where it is needed.

A MESSAGE FROM OUR CHAIR



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

I would like to recognise and congratulate the residents and community groups surrounding Verran Gully for the significant restoration works that have already been completed to date. Groups have cleared large sections of pest weed species, maintained trap lines and committed to working bees. This work will give us a good platform to launch the Halo from.

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.

Regards,

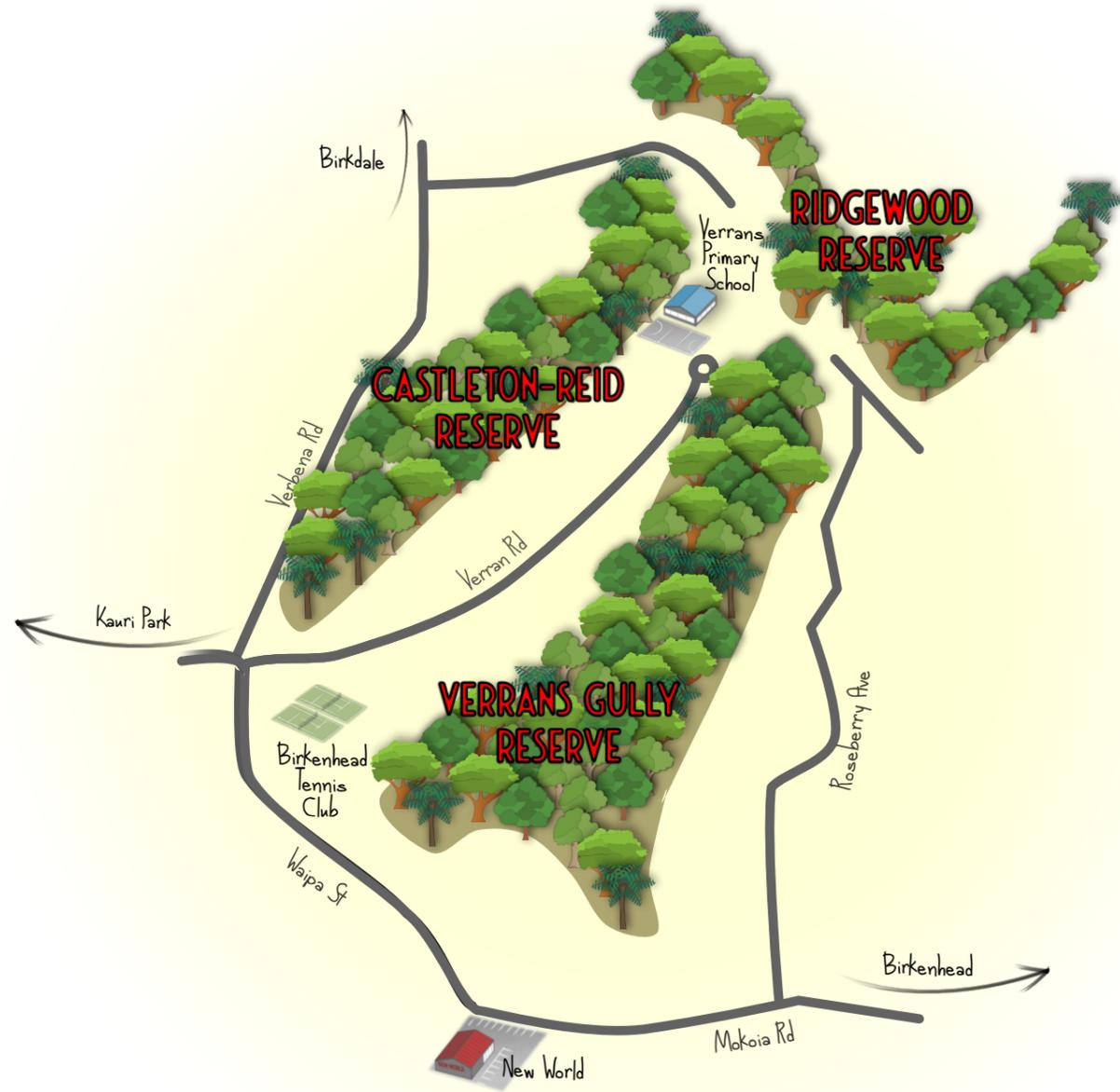

VERRAN GULLY HALO

The Verran Gully Halo area covers nearly 93 hectares bordered by Castleton street, Verbana, Mokoia Road and Roseberry Ave. Castleton Reid, Ridgewood and Park Hill Reserves and the nearby surrounding streets make up the Verran Gully Halo.

Large areas of Significant Ecological Areas (SEA's) are found within the halo, including two endangered ecosystem types; Kauri, podocarp, broadleaved forest and Taraire, tawa, podocarp forest. These ecosystems are vital for providing important seasonal food, roosting and nesting sites for numerous birds, bats and insects.

Verran Gully Bush Reserve and the surrounding private properties contain a number of large kauri trees. The area is untracked and difficult to access, likely one of the reasons it contains a diverse natural ecosystem and a potential safe-haven for Kauri.

For many years, residents and community members of VERG (Verrans, Eskdale Restoration Group) have been clearing out weeds and setting predator lines to trap rodents, providing protection for native species and facilitate the return of native bird life and other species such as Forest Gecko, copper and ornate skink which have been



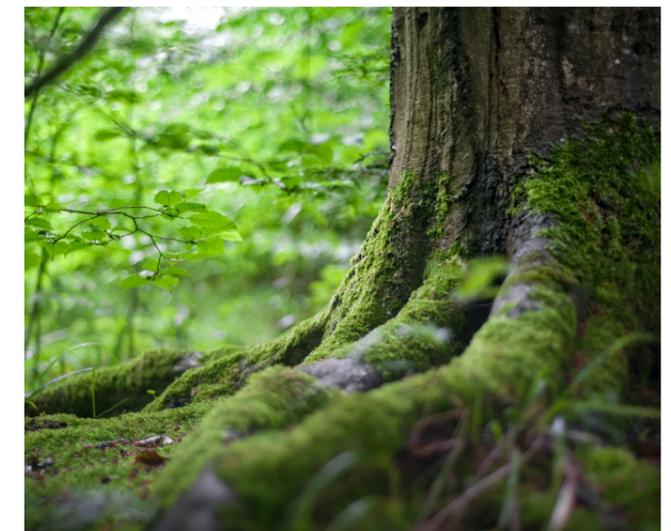
recorded within two kilometres of Castleton-Reid reserve.

Sadly, in 2018 it was discovered that some kauri in nearby 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. Importantly, the inaccessibility of Verran Gully maybe a saviour as its inhospitable terrain render it an 'inland island' which may reduce the chances of human spread kauri dieback pathogen.

In December 2018, PFK was successful in obtaining a grant from Auckland Council to establish a Halo around these reserves and surrounding residential properties to maximise the ecological health of the halo areas and decrease the impact and spread of kauri dieback. This grant enables us to support community driven initiatives such as predator and weed control, with the aim to be pest free by 2026.

Thanks to a grant from the Kaipatiki Local Board, restoration plans for Verran Gully, Ridgewood and Castleton-Reid Reserve have been developed. The Restoration Plans identify four management zones for Verran

Gully and Ridgewood, and five for Castleton Reid reserve, making professional recommendations for weed, predator and restoration 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.



PEST ANIMALS

GENERAL STRATEGY

PLACE TRAPS

Due to the narrow, long shape of Verran Gully and Castleton-Reid reserves predators can be maintained at low numbers if an entire ring of traps or bait stations could be formed on private property around the reserves. This also prevents the need to enter the forest and risk further spread of the disease. Timms and DOC200 traps can be placed out 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 on controlling rat populations. Pulses are conducted four times a year (see Annual Calendar, page 8), bait stations are deployed for four weeks and traps for six weeks during a pulse.

MONITOR PROGRESS AND RESPOND

Use chew-cards and catch rates to monitor the trend in populations of mammalian pests. Chew cards can be helpful to identify when trap-shy predators are still present. Catch rate can be monitored to identify if certain areas within the halo have greater numbers of predators. Trapping effort can be increased proactively in response to results.

RECORD TRAP RESULTS

Record all trap results in EcoTrack. EcoTrack can be downloaded from the Google Play Store or the Apple Store, or by visiting the EcoTrack home page: www.ecotrack.nz

Training on how to use EcoTrack will be available at multiple times in the year. Instructions on how to use EcoTrack can also be found on PFK's website: www.pestfreekaipatiki.org.nz

REPORT WASPS AND ANTS

Wasp nests and Argentine ants should be immediately reported to Auckland Council when found on 09-301-0101. 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.

PEST TYPES

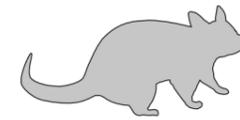
RATS



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

A total of 140 bait stations and 60 rat traps is estimated to control the rats in all three reserves. One trap or bait station should be placed every 50m. One in three properties around the reserves should also have a rat trap or bait station.

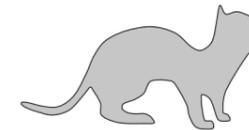
POSSUMS



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

PFK estimate that there would be a need at least 22 Timms Traps; 6 around Castleton-Reid Reserve, 3 around Ridgewood Reserve, and 13 around Verrans Gully. Traps can be deployed where sightings have been made. Volunteers are required to set and monitor traps and record catch results in EcoTrack.

STOATS



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

PFK estimate that there would be a need for 5 DOC 200's placed strategically across the Halo to enable control of stoats. These should be deployed where sightings have been made. Ideally placement will include some near the North-east Pony Club. Volunteers are required to set and monitor traps and record catch results in EcoTrack.

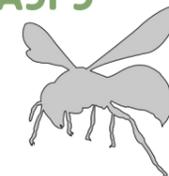
HEDGEHOGS



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

Fifteen DOC 200 traps are estimated to be required to control hedgehogs. These are in addition to those required for stoats. Volunteers are required to set and monitor traps and record catch results in EcoTrack.

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 09-301-0101. It is the responsibility of property owner's to remove wasp nests on their property. The recommended method is using a pyrethroid such as 'Dust 2 Dust' 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.

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 SPECIES IN ORDER OF PRIORITY

All the reserves in Verran Gully Halo were surveyed for the presence and abundance of pest plants. Each plant's abundance was categorised as scarce, occasional or common. Each species has also been given a ecological impact rating of low, medium or high according to the potential damage that species can have on native wildlife. The abundance and ecological impact of each species in each reserve were considered before designating a priority score. The priority score indicates an approximate order in which species should be controlled, it ranges from 1 to 7 and has also been colour coded for quick visual reference in the species list table as follows:



CHECK FOR REGROWTH

Every three to six months each reserve should be surveyed for re-growth. 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.

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.

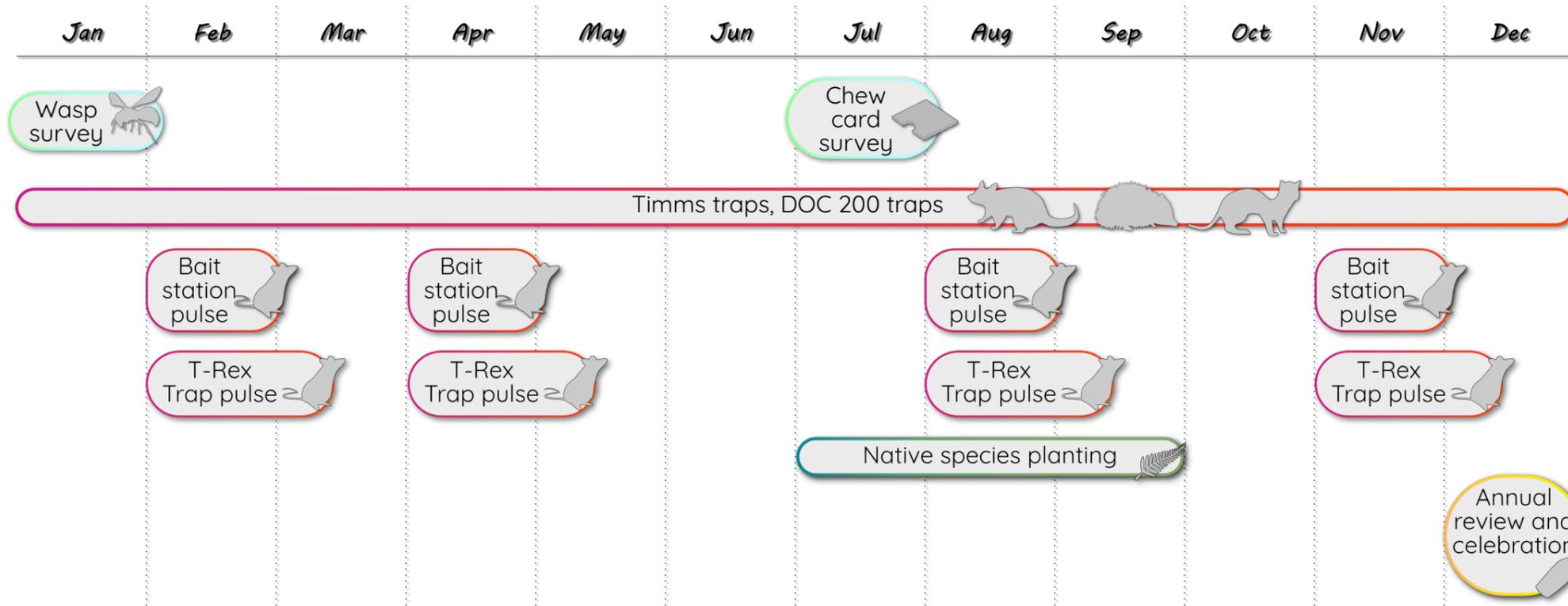
REPORT AND RECORD ON ECOTRACK

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

PLANT SPECIES LIST

Common name	Abundance (left) Ecological Impact (right) Priority (colour)		
	Verran Gully Reserve	Castleton-Reid Reserve	Ridgewood Reserve
Climbing asparagus	Scarce - High	Scarce - High	
Elaeagnus		Scarce - High	
Moth plant, kapok vine			Scarce - High
Golden dewdrop			Scarce - High
Japanese spindle	Scarce - Medium	Scarce - High	Scarce - Medium
Bangalow palm	Scarce - Medium	Scarce - High	
Jasmine	Scarce - High	Scarce - High	
Kahili ginger, wild ginger	Scarce - High	Common - High	Scarce - High
Queen of the night	Scarce - Medium		Scarce - Medium
Cretan brake fern	Scarce - Medium		Scarce - Medium
Woolly nightshade		Scarce - High	Scarce - Medium
White pampas			Scarce - Medium
Japanese honeysuckle			Scarce - High
Arum lily	Scarce - Medium	Scarce - High	Scarce - Medium
Montbretia	Scarce - Medium	Scarce - Low	Scarce - Medium
Blue spur flower	Scarce - Medium		Scarce - Medium
Chinese privet	Scarce - High	Scarce - High	
Velvet groundsel	Scarce - Medium		
English ivy		Scarce - Medium	Scarce - Medium
Monstera		Scarce - Medium	Scarce - Low
Elephants ear		Scarce - High	
Giant reed		Scarce - Medium	
German ivy			Scarce - Medium
Periwinkle			Scarce - Medium
Monkey apple		Common - High	Scarce - Medium
African clubmoss	Scarce - Low	Scarce - Low	Scarce - Low
Tradescantia	Occasional - High	Common - Medium	Common - High
Agapanthus	Scarce - Medium		Scarce - Medium
Palm lily	Scarce - Low		Scarce - Low
Tree privet	Scarce - Medium		
Palm grass	Scarce - Medium		
Loquat		Scarce - Medium	Scarce - Low
Black wattle		Occasional - Low	
Fatsia		Scarce - Medium	
Shrub balsam		Scarce - Medium	
Aristea, blue-eyed iris			Scarce - Medium
Hybrid bindweed			Common - Low
Indian shot, canna lily			Scarce - Low
Spider plant			Scarce - Low
Cotoneaster			Scarce - Medium
Tuber ladder fern			Scarce - Low
Brush wattle			Scarce - High
Taiwan cherry			Scarce - Medium
Willow weed			Scarce - Low
Yucca, Spanish dagger	Scarce - Low		
Monterey pine	Scarce - Low		
Blackberry		Scarce - Medium	Scarce - Low
Water celery			Scarce - Low
Mountain pawpaw			Scarce - Low
Fairy crassula			Scarce - Low
Umbrella sedge			Scarce - Low
Hydrangea			Scarce - Low
Inkweed			Scarce - Low
Gorse	Scarce - Low	Scarce - Low	
Oldhams bamboo		Occasional - Low	
Maritime pine		Occasional - Low	
Kikuyu grass			Occasional - Low
Nasturtium			Occasional - Low

ANNUAL CALENDAR



LEGEND	
	Monitoring activities
	Trapping activities
	Planting and weeding activities
	Community activities

INFORMATION ABOUT PULSED BAITING AND TRAPPING

Bait stations pulses last for 4 weeks but T-Rex traps pulses last for 6 weeks. They both start at the same time but T-Rex trap pulses ended two weeks later bait station pulses. Each year the pulses begin and end on the following dates:

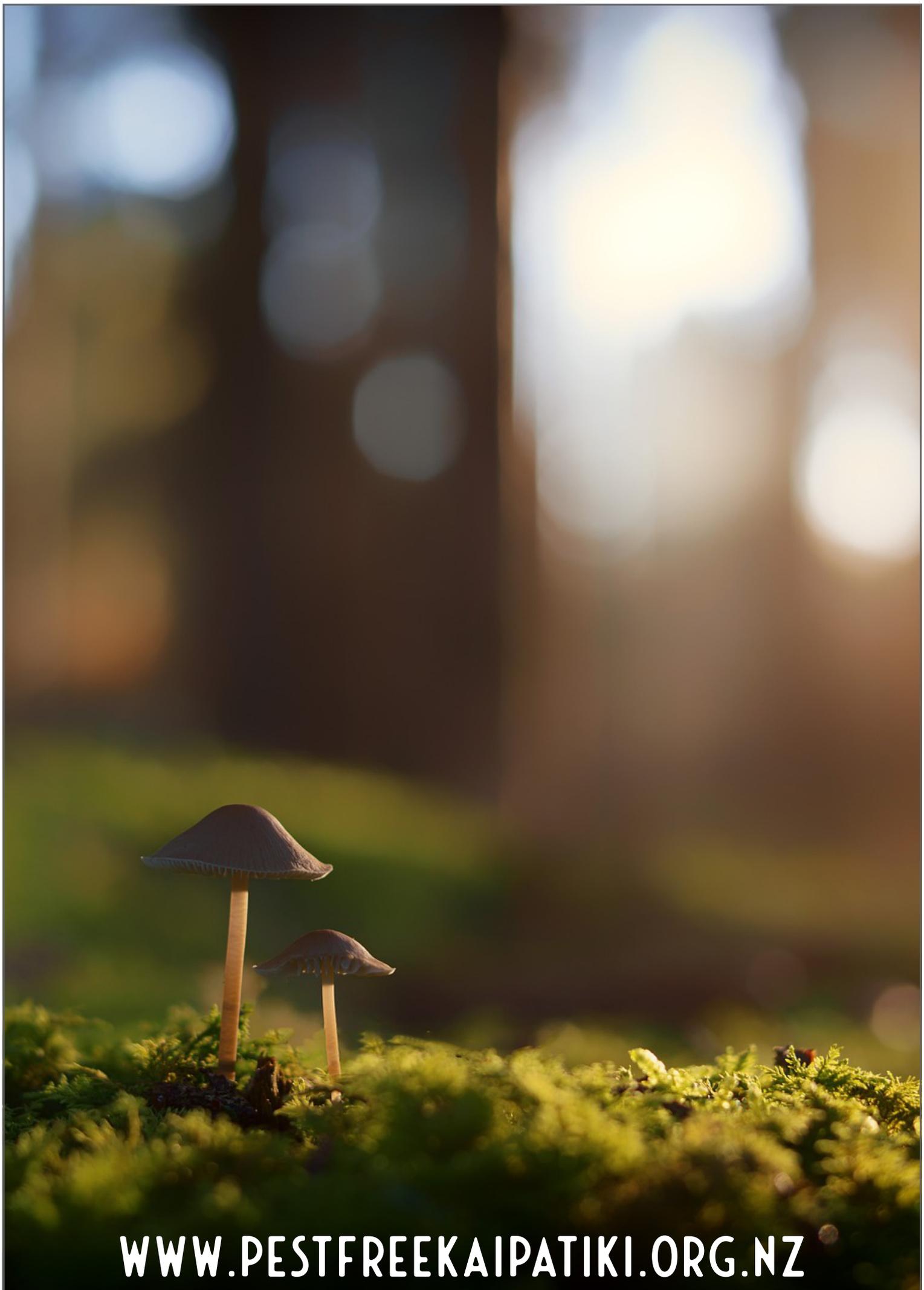
Bait stations: 1st Feb - 28th Feb, 1st Apr - 28th Apr, 1st Aug - 28th Aug, 1st Nov - 28th Nov

T-Rex traps: 1st Feb - 14th Mar, 1st Apr - 12th May, 1st Aug - 11th Sep, 1st Nov - 12th Dec

For more information visit www.pestfreekaipatiki.org.nz for detailed information on pulsing and trapping in general.

PROGRESS

	2021	2022	2023	2024	2025	2026	GOAL
<div style="text-align: right; margin-bottom: 10px;"> </div>							
PEST PLANTS - NUMBER OF SPECIES ERADICATED OR TICK WHEN COMPLETE							
Priority 1 plant species	VG CR RR	1 3 2					
Priority 2 plant species	VG CR RR	6 5 8					
Priority 3 plant species	VG CR RR	4 4 6					
Priority 4 plant species	VG CR RR	7 6 11					
Priority 5 plant species	VG CR RR	2 1 4					
Priority 6 plant species	VG CR RR	1 2 8					
Priority 7 plant species	VG CR RR	3 2					
NATIVE PLANTINGS - NUMBER OF TREES PLANTED							
Natives planted	VG CR RR						
TRAPPING AND BAITING - NUMBER ANIMALS CAUGHT OR BAIT STATION VISITS							
Rats	VG CR RR	0 0 0					
Bait station visits	VG CR RR	0 0 0					
Possums	VG CR RR	0 0 0					
Hedgehogs	VG CR RR	0 0 0					
PRIVATE PROPERTIES - NUMBER OF PRIVATE PROPERTIES TRAPPING							
Properties with traps							300



WWW.PESTFREEKAIPATIKI.ORG.NZ