

# Predator Free Whangārei

# 2022 ANNUAL REPORT



Northland  
REGIONAL COUNCIL





*Ka rere he kūkupa e kawea ana ngā kākano mō āpōpō*

*Tihewa mauri ora ki te wheiao ki te ao mārama*





# TABLE OF CONTENTS

## 04 **Foreward**

By Sam Johnson, Biosecurity Manager, Predator Free 2050 Te Taitokerau

## 05 **Overview**

A brief summary of the three project areas that Predator Free Whangārei covers.

## 06 **Learnings**

Key earnings for the project since the funding was received in 2019.

## 07 **Highlights**

Our top highlights and milestones for the possum eradication project for the year of 2022.

08 Highlight 1: Building staff capacity

09 Highlight 2: Going 'live' and progress on the ground

10 Highlight 3: GIS Dashboard development

11 Highlight 4: Trialing new technology

12 Highlight 5: Inspiring our future leaders

## 13 **Urban trapping**

An update from Tiakina Whangārei, the urban backyard trapping programme.

## 14 **Enhanced mustelid suppression**

60,000 hectares of enhanced mustelid suppression network, facilitated by Kiwi Coast.

## 15 **Financial Summary**

An over of the Financial Year 1st July 2021 - 30th June 2022

## 16 **What's next**

A few priorities for the project as we move into the next year.

# FOREWARD

Kia ora koutou,

The Predator Free 2050 kaupapa is something that the vast majority of the community and mana whenua have been supportive of. It's an honour to have the opportunity to be involved with this project which has the lofty objective of removing key predators from the Whangārei Heads area to enable our ngahere and native fauna to flourish.

He aha te mea nui o te ao? He tāngata, he tāngata, he tāngata! (What is the most important thing in the world? It is people, it is people, it is people!) This whakataukī (proverb) is right at the heart of what we do and is where a lot of our teams' time has been invested, with key learnings made. Delivery of this project was always strongly based around enhancing the work already happening by community groups and helping to build the capability of keen kaimahi who want to be involved, not only over the period of the contract, but into the future. This remains our focus as we head into a new year.



I want to say a big thankyou to the many community members who have given much of their time to help shape this project, as well as their patience while our team mould the delivery to work with the many land owners. At times we've felt our progress has been slower than we would like, but are reminded by other projects before us, that getting the foundations solid at the start, will provide the best platform for the longevity of this highly valuable kaupapa.

A big thankyou also to the Whangārei PF2050 team who are keenly invested day in day out and despite challenging coastal terrain, dense ngahere and the wettest winter in many decades. I applaud them as they have remained committed to their responsibilities and are passionate about this mahi.

Ngā mihi,  
Sam Johnson

Biosecurity Manager – Predator Free  
2050, Te Taitokerau



# OVERVIEW

Predator Free Whangārei is a bold eradication project that builds on decades of successful community pest control across the Whangārei district.

Whangārei boasts some of the country's most important coastal forests, freshwater wetlands, and kiwi habitats. Combined with the community's strong commitment to conservation, Whangārei is well underway to achieve the Predator Free vision.

## Area One - A possum free Whangārei Heads.

The aim is to completely remove possums from over 9,000 ha of Whangārei Heads, collaborating with over 1,200 landowners, community groups, and hapū/whanau/iwi, making it one of the country's first large landscape scale eradication project of its kind.

With a natural water barrier, new technologies, and an active field team, we believe this is achievable by 2025.

## Area Two - Tiakina Whangārei.

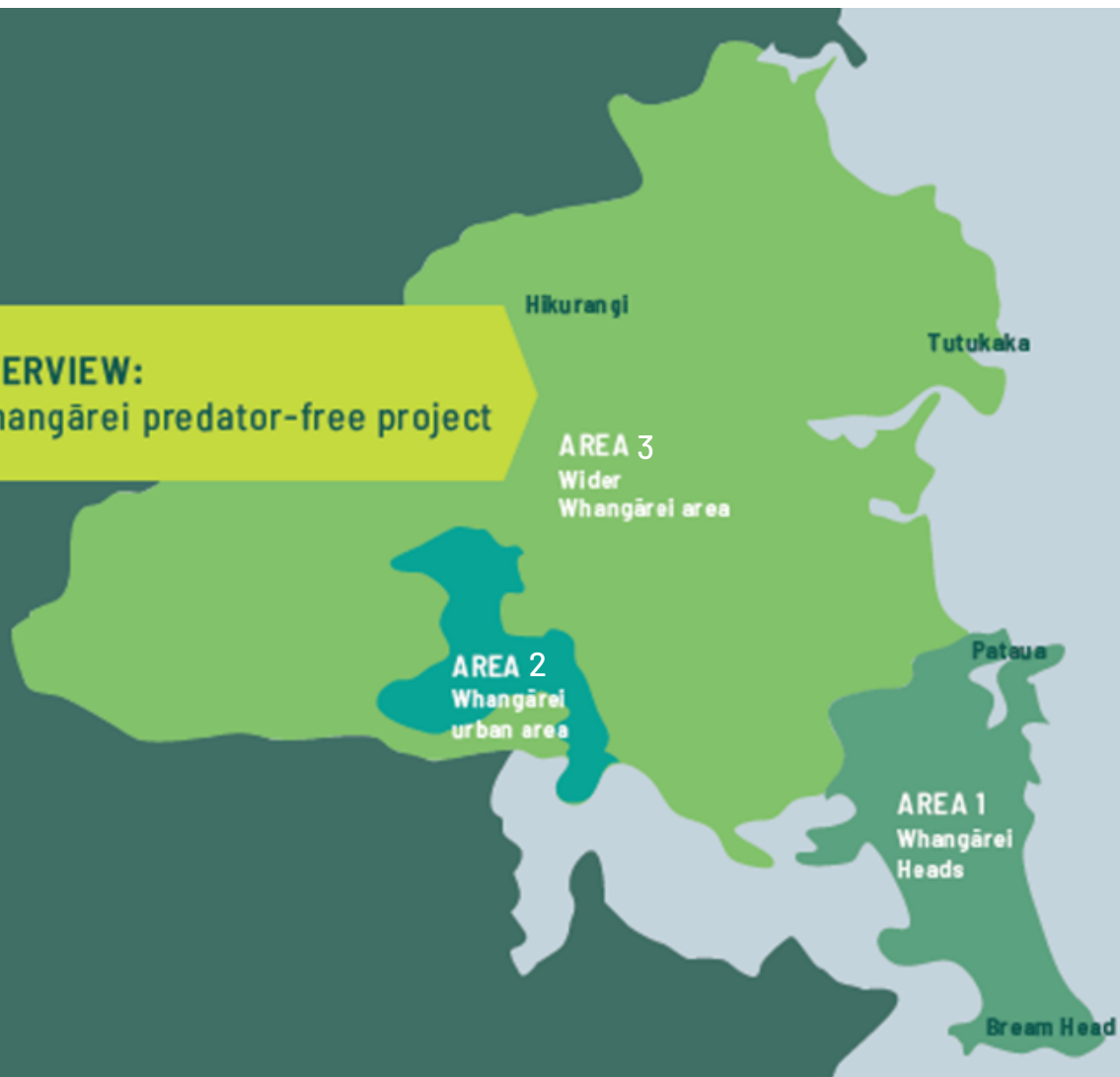
An urban backyard trapping programme. Through backyard trapping we are helping people better understand the impact of predators and creating learning opportunities in urban communities.

## Area Three - Mustelid Suppression.

We will accelerate and enhance the communities hard work to further protect Whangārei's biodiversity values. This will include 60,000 hectares of intensive mustelid control and in special areas rat and possum control. Kiwi Coast and local community groups will help with this suppression network.



## OVERVIEW: Whangārei predator-free project





# LEARNINGS

While eradications on offshore islands have been successful, large landscape scale projects on the mainland are still novel. Here are some of our learnings:

- Establishing a strong steering/governance group takes time, and it is critical to get right from the beginning, so that voices from different perspectives are heard and collaboration is genuine.
- We need room to accept trial & error of different methodologies and new technologies.
- Eradication - to get the very last predator - takes community commitment. We need to be adaptable to different circumstances and be able to think outside the box.
- Partnership with mana whenua is critical to the project's success, which takes time to develop.



# HIGHLIGHTS

Below are some highlights from the past year's for the possum eradication project at Whangārei Heads.

The following pages will go through each of these highlights in more detail.

1

**BUILDING STAFF CAPACITY**

2

**GOING 'LIVE' AND PROGRESS  
ON THE GROUND**

3

**GIS DASHBOARD  
DEVELOPMENT**

4

**TRIALLING NEW TECH**

5

**INSPIRING FUTURE  
LEADERS AT SCHOOLS**





Image courtesy of Predator Free 2050 Limited. Photographer: Stu Atwood.

## Highlight 1

*Back row: Hadden Morrison, Vivienne Lepper, Joanne Kim, Winiwini Kingi, Gaelyn Dewhurst;  
Front row: Sam Johnson, Riley Edwards, Oliver Hopwood, Zac Coffin; Absent: Su Sinclair*

## BUILDING STAFF CAPACITY

In the past year, the project has employed nine staff to carry out the Predator Free Whangārei project, the majority of who are Whangārei locals. The team comprises of five Biosecurity Field Officers, a Communications and Engagement Co-ordinator, a Tikanga Advisor, an Operations Lead, a Project Manager, and a Predator Free Te Taitokerau Manager. With five staff on the ground, and an operations lead providing operations advice, the continuous servicing of traps and bait stations was achieved.

Despite the challenges set by COVID-19 and one of the district's wettest winters, a full field team has meant that work on the ground has been able to continue each week. To ensure the safety of the growing team, various training and certifications have been obtained.

The digital era has also helped the project stay connected with key stakeholders and the wider community during the pandemic. In the more recent months we have been busy engaging with communities *kanohi ki te kanohi*, forging stronger relationships. Having a full team in place has enabled us to get on with school engagement, attend community events and give us space to review our steering group structure.

Learn more about the staff at [www.predatorfreewhangarei.nz/about/our-people/](http://www.predatorfreewhangarei.nz/about/our-people/)



## Highlight 2

# GOING 'LIVE' AND PROGRESS ON THE GROUND

In April, one of the biggest milestones was achieved – the possum eradication project was ready to go 'live'.

Bait stations were filled with toxin and kill traps were activated.

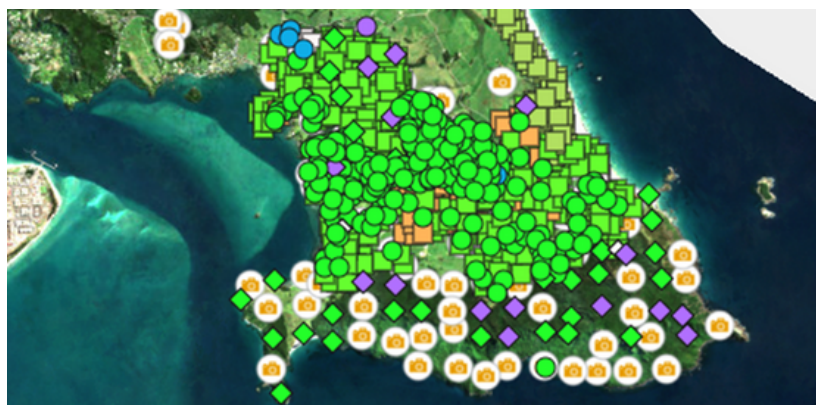
Implementation of the eradication plan started in the Bream Head/Te Whara reserve. Thanks to decades of conservation efforts by the Bream Head Conservation Trust and the Ocean Beach Landcare Group, possum numbers were already low, giving our team a head start. The team will continue a rolling front moving north towards the Parua Bay township.

The physical and social landscape is diverse at Whangārei Heads. Of the 9,100+ hectares of the possum eradication area, 30% of the terrain is public conservation land, with pockets of residential areas residing amongst farmland. Whenua Māori located at Pataua is also within the project area. In total, over 1,200 landowner agreements will be required.

The operational plan has had to remain fluid and adaptable to accommodate the residents' different preferences for eradication methods. For example, in one area there will be several properties, each with different device types, some with bait stations, other with only kill traps. Other properties had seasonal restrictions due to farming operations where traps such as AT220's were used.

As of September 2022,

- **203** Landowner Agreements received.
- **287** kill traps set live. There has been a total of 1,591 trap checks.
- **362** bait stations filled with toxins. A total of 2,400 bait station checks have been made.
- A total of **97** trail cameras have been set which have been serviced monthly.

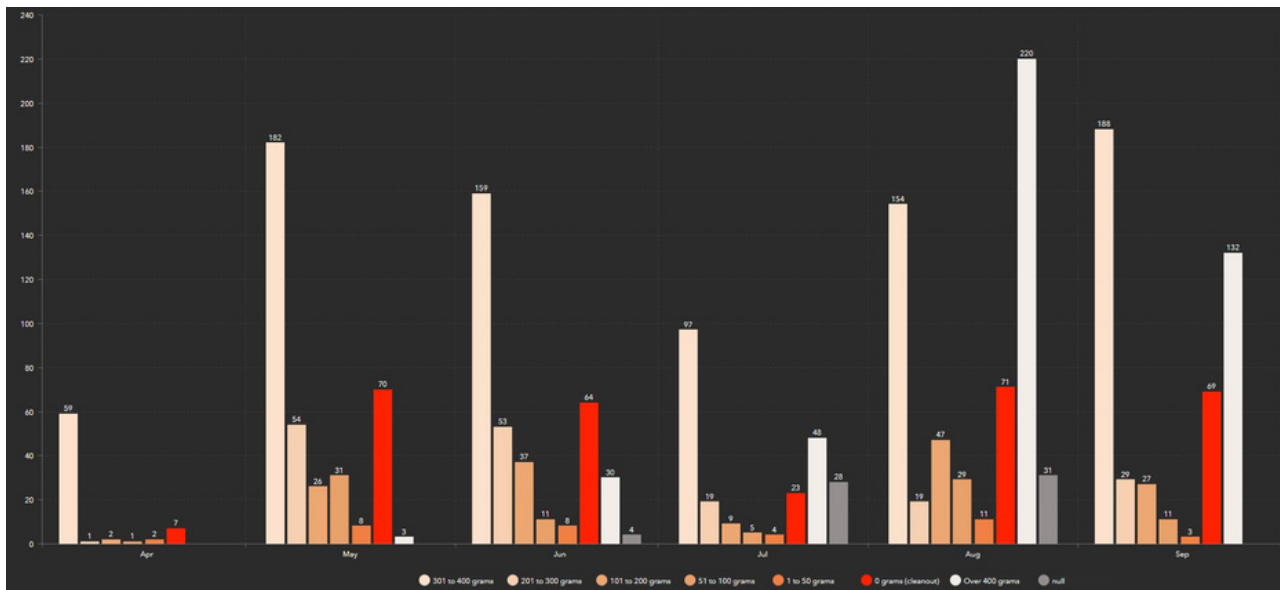


Map which shows the different devices and its status, September 2022.

Bait station installed	Trap to be installed	Other
Bait station set/live	Trap set/live	Camera
Bait station uninstalled	Live trap installed	

# GIS DASHBOARD DEVELOPMENT

## Highlight 3

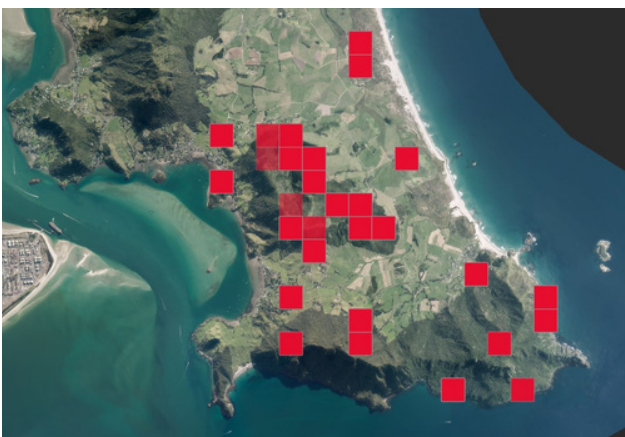


Bar graph which shows the amount of bait taken this past year, September 2022.

Capturing data correctly and responding appropriately is key to the eradication success. Developing a functioning and efficient GIS platform has been a key project this past year.

Some of the features are:

- The use of Survey 123 to record and access landowner agreements and landowner information, which is all easily accessible while in the field and in the office.
- While at the office staff are able to see at single glance on a dashboard the different device types and their current status.
- In the field, the team can record bait take and trap status on their mobile devices, which is then captured for data analysis.
- Detailed logging of trap catches such as possums' sex, age, colour is possible.
- DNA samples which have been collected can be logged into our GIS system to get an understanding of possum population and distribution.
- All trail camera images that are classified monthly are entered into our GIS system so we can visually demonstrate possum, rodent, stoat, and kiwi presence or absence.



Cameras that have detected possums in April versus August this year.



## Highlight 4

The development and trialing of smarter, safer and more effective tools is critical to the success of Predator Free 2050.

The Whangārei team has grasped the opportunity to integrate the live leghold trap, the ZIP PosStop, into the projects lean detection network. The traps are fitted with auto-reporting nodes from Encounter Solutions that are linked to a wireless network, designed specifically for monitoring and control across large landscapes.

When the trap is triggered, the field team are notified via the wireless network and can respond immediately. This innovative technology is cost-effective, enables the field teams to optimise their visits, improve welfare outcomes, reduce health and safety risks, and reduce the overall cost of the trapping program.



Biosecurity Officer Riley Edwards servicing the trap during its trial period in April.

## TRIALLING NEW TECH

In April, this new technology was trialed in Taurikura, with success. Eight possums were caught from six set legholds during the two week trial period.



Celium Network Hub on Taurikura.

A solar-paneled hub has been installed in three areas of the Whangārei Heads, which transmits data to and from the trap nodes and mobile devices. When the leghold is triggered and a message is received, the trap is checked within 12 hours of sunrise to ensure the predator is dispatched humanely. Whilst fine tuning was required for a few technical errors, this product is seen as one of the project's most effective tools. This is a valuable infrastructure for Council, as it has many applications, beyond just trapping.

This network of traps will be activated in the Bream Head/Te Whara reserve first, and the field team will begin a weekend roster in October to be able to service them.



## Highlight 5

# INSPIRING FUTURE LEADERS

A Predator Free school programme, coined 'Guardians on the Lookout' was launched at Parua Bay School and Whangārei Heads School in August this year. The programme aims to empower the students to take on an important monitoring role for the possum eradication project. Each school has been given a set of trail cameras to monitor and report on possums and other pests in their neighborhoods. At Parua Bay School, this programme has expanded into other learning opportunities within the classroom.

Students, parents, teachers, landowners, and Enviroschools facilitators, have shown support and taken part in this programme.



Both schools warmly welcomed our Predator Free Whangārei team with a whakatau, kai and whanaungatanga. The Predator Free field team introduced the schools to the project with an interactive presentation and welcomed the students as our "Guardians on the Lookout".



Students from both schools were taken out into the field to install their trail cameras and automatic lure dispensers, and were taught how to set them up to ensure quality image captures.



After a few weeks, when the students had collected their first set of images, they were taught how to classify, record and report their findings back to their teachers and the Predator Free field team.



In addition, because kauri are present on the Whangārei Heads peninsular, the Predator Free field team tied a kauri dieback/biosecurity hygiene component into the camera checking routine.

*Image 1: Whakatau at Whangārei Heads School.  
Image 2: Parua Bay School students going to service a camera.  
Image 3: Whangārei Heads School students learning about the devices.  
Image 4: Parua Bay School students going through the trail camera images and recording data.*



# TIAKINA WHANGĀREI

Tiakina Whangārei is a community-led urban initiative helping people connect with their environment through conservation activities, while supporting existing mahi, to protect and enhance Whangārei's native biodiversity.

This past year, through Tiakina Whangārei, a 'Predator Free Parihaka' group was established, working alongside 'Predator Free Onerahi' which continues to increase with the urban community becoming more involved with pest control.

Further engagement with the urban community were carried out to encourage locals to get involved

- A successful teachers' professional development workshop was held so teachers could be empowered to take pest management principles and practices into their classrooms and school.
- Several urban surveys were conducted. Some were from local community members and some from organisations such as NorthTec.
- Community events and hubs such as the weekend grower's market was attended to educate the wider urban community about pest control and give out rat traps or chew cards for an urban predator survey.





# ENHANCED MUSTELID SUPPRESSION



Due to decades of successful conservation efforts across the Whangārei area, the kiwi population is thriving. Predator Free Whangārei will support Kiwi Coast to enhance, improve and expand their current mustelid suppression network across 60,000 hectares of Whangārei.

There has been a lot of activity in the seven areas within this network this past year, which has been carried out by various community groups, thanks to Kiwi Coast.

Some highlights this past year have been:

- Supporting professional trapper labour for various groups.
- Supporting greater infrastructure with mustelid traps and new trap lines to close gaps in certain areas.

Discussions to strengthen this network have been made to help consolidate the efforts, with the below overarching strategies.

Strategy	How	Example
Enhance	Through methodology	Trap check timing, toxin pulses
Improve	With technology	Monitoring with cameras and ALDs, self-resetting traps and toxin dispensers
Expand	Improve coverage	Engage with new landowners, particularly where other taonga species exist





# FINANCIAL SUMMARY

Predator Free Whangārei Project funding comes primarily from Predator Free 2050 Limited, a national budget. Supporting funding is also received from Northland Regional Council, and a number of other organisations provide in-kind contributions, mainly in the form of voluntary people-time.

COVID-19 restrictions early in 2022 reduced the ability to engage with land owners, community and hapū/whanau/iwi to deliver the project. This slowed on-ground delivery and access to input from supporting groups and contractors. Lower spending on traps, hardware, and contractor and staff wages resulted. Funding that was not spent is held in reserve for future project delivery.

Below is a summary of the Financial Year 1st July 2021 – 30th June 2022

## Project Expenses

Traps, Baits & Hardware	\$ 261,608
NRC Staff Field Delivery	\$ 437,000
Contractor Field Delivery	\$ 48,000
Management and Administration	\$ 155,000
Consultants	\$ 49,000
Other	\$ 25,814
	<hr/>
	\$ 976,422

## Funding streams utilised

PF 2050 Ltd Funding Utilised	\$ 739,439
NRC Funding Utilised	\$ 236, 983
	<hr/>
	\$ 976 422

*Note: Total funding of \$ 2,101,552 was received for the 2021/22 year in line with original contract budgets, of which \$739,439 was utilised, as outlined above. \$ 1,362,113 is held in reserve and available for spending for the remainder of the project.*



# WHAT'S NEXT

Along with the ongoing rolling front of the possum eradication, our team are continuing to work on a number of initiatives to ensure we achieve our Predator Free goals.

These are some of our next steps for Predator Free Whangārei:

- Revive, review, and reconnect the project's Steering/Governance group.
- Establish and strengthen partnership with mana whenua.
- For field operations at Whangārei Heads, progress further into the Reotahi and Manaia working blocks, which will begin with engaging with landowners and gaining access agreements.
- Collaborate with Aki Tai Here and begin possum eradication at Pataua.
- Work with Kiwi Coast to facilitate the 60,000 hectares enhanced mustelid suppression network.





Thank you to all our supporters and to those involved in making this project possible.

A special thanks to the landowners, schools, conservation groups, and mana whenua from the Whangārei Heads.



*This tohu - Tuia te Taiao - is a symbol used to represent all those involved with the Predator Free movement across Aotearoa.*



predatorfreewhangarei.nz