

TE MANAHUNA AORAKI project

Oha te ora hau – Breath stirs new life

D)



Moehewa o ngā Tīpuna A dream of the ancestors He toīri tō hau Your breath tingles Ka wiri ka aho The strands quiver He tuauri tēnei kākahu This cloak is ancient He paoro te hau kai takata The echo of the north-west wind Oha te ora i tēnei whenua Awakens life in this land



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### INTRODUCTION

## Our vision

The towering mountains, braided rivers and tussock grasslands of Te Manahuna Aoraki are revitalised. Native animals, plants and people thrive together in a vast, protected, mainland island.

Oha te ora hau – Breath stirs new life



Te Manahuna Aoraki Project is an aspirational project aiming to achieve transformational changes across 310,000 hectares of alpine and dryland landscapes.

The project area spans the eastern side of Kā Tiritiri o te Moana/the Southern Alps of Aotearoa/New Zealand. It includes much of the upper Mackenzie Basin and Aoraki Mount Cook National Park with the country's tallest mountains, glacial lakes, vast expanses of tussock grassland, and large braided rivers.

After four years of development, a long-term plan was approved in 2022 to awaken new life and restore vitality in the project area. Over twenty years, the project will restore nature by eliminating small mammal pests, removing weed threats, and inspiring a culture of care to ensure these transformational outcomes are maintained for future generations. We will work with manawhenua and others to develop initiatives to enhance sites of ecological and cultural importance.



## The unique values of Te Manahuna Aoraki

Te Manahuna/Mackenzie Basin is an extensive tussock landscape known to manawhenua as the place of enlightenment. The project also encompasses Aoraki Mount Cook National Park and Aoraki, Aotearoa's highest mountain and the most sacred of ancestors for Ngāi Tahu.

The project area was created over millions of years as glaciers carved paths through our highest mountains. As the glaciers retreated they left behind unique braided rivers feeding into the turquoise lakes, and outwash plains with their tussock grasslands. The combination of landform, rainfall, and drainage has created an outstanding array of unique ecosystems and species not found anywhere else in the world.

Tuke/rock wren, scree wētā, and kea live amongst the mountainous scree and scrub. The tussock grasslands are home to populations of the threatened Tekapo ground wētā and Mackenzie skink, while naturally rare moraine, outwash, kettlehole, and inland dune ecosystems harbour diverse communities of threatened endemic plants.

The braided rivers provide foraging and nesting habitat for the world's rarest wading bird, the kakī/ black stilt, as well as tarāpuka/black-billed gulls,

ngutu-parore/wrybill and tūturiwhatu/banded dotterels. The stable river terraces are home to insects like the endangered robust grasshopper.

Te Manahuna Aoraki has huge significance for manawhenua. The landscape is woven with interconnected values, including mahika kai sites, taonga species, and sites of archaeological importance. Iwi, hapū, and whānau have an immense sense of belonging and connection to the whenua.

A connection to place also threads through the culture of high-country farming. The open and rugged landscape has inspired generations of families to set down roots and this has built a strong sense of community. The climate and soil are favourable for farming and the iconic setting instills a sense of pride in the runholders responsible for managing the land.

These vast iconic landscapes have inspired awe in generations of Kiwis and the values of the land are a treasured part of our national identity. People visit from every corner of Aotearoa/New Zealand and the world. The image of Te Manahuna Aoraki is seen as quintessential Aotearoa/New Zealand and used to promote the country as a tourism destination.

## WHO WE ARE

Te Manahuna Aoraki Limited was established as a charitable trust in 2018. The project was formed through partnership and this collaboration is key to our long-term success. With manawhenua, government agencies, runholders, philanthropists and the community working together, we aim to transform the ecological prospects of the upper Mackenzie Basin and Aoraki Mount Cook National Park.

### Founding partners





Te Rūnanga o Arowhenua







### **Department of Conservation**

The Department of Conservation/Te Papa Atawhai manages 60% of the project's land area on behalf of New Zealanders. This includes Aoraki Mount Cook National Park. > doc.govt.nz

### Te Rūnanga o Arowhenua

The takiwā of Te Rūnanga o Arowhenua centres on Arowhenua near Temuka and extends from Rakaia to Waitaki and inland to Aoraki and the Main Divide.

→ arowhenua.org

### Te Rūnanga o Moeraki

Moeraki is the southernmost rūnaka in the project area. It centres on Moeraki and extends from Waitaki to Waihemo and inland to the Main Divide.

→ terunangaomoeraki.org

### Te Rūnanga o Waihao

Named for its river, which has its footprint in the inland foothills. The takiwā centres on Wainono near Waimate, sharing interests with Te Rūnanga o Arowhenua to Waitaki, and extends inland to Omarama and the Main Divide.

→ waihaorunanga.co.nz

### **NEXT Foundation**

NEXT is a strategic philanthropy fund. Its vision is to leave a legacy of environmental and educational excellence for the benefit of future generations of New Zealanders - supporting our land and our people.

→ nextfoundation.org.nz

## **Partners**

#### HIGH COUNTRY LANDOWNERS



Toitū Te Whenua Land Information lew Zealand

AOTEAROA FOUNDATION







#### Landowners of Te Manahuna

The 14 large private landowners and Crown pastoral lessees in the project area are all key partners in the project.

### Toitū Te Whenua Land Information New Zealand (LINZ)

LINZ manages Crown lands including pastoral leases and rivers in the project area. In 2021 LINZ also invested significant funding from its Jobs for Nature programme to remove pests and weeds within the Te Manahuna Aoraki project area. → linz.govt.nz

### **Aotearoa Foundation**

The Aotearoa Foundation is affiliated to the Robertson Foundation established by Julian and Josie Robertson and their family in 1996. The Foundation's primary area of interest within the environment is the impact of climate change. > robertsonfoundation.org

### **RE:Wild**

RE:Wild (formally Global Wildlife Conservation) is an international conservation organisation working to protect and restore biodiversity. → Rewild.org

### **Jasmine Social Investments**

Jasmine Social Investments funds high-performing social ventures. Areas of interest include health, education, better livelihoods and environmental sustainability.

→ jasmine.org.nz

### Predator Free 2050 Ltd

Predator Free 2050 Limited is a Crown-owned, charitable company established to help deliver the New Zealand government's ambitious goal of eradicating possums, stoats and rats by 2050. → pf2050.co.nz

## Te Manahuna Aoraki Project area



## Project highlights 2021-2022



## **Achievements** 2018-2022



### 4,500+ predator traps being serviced over 60,000 ha

Extended small mammal suppression networks to protect braided river species



## High-altitude predator fence trial

Fence has withstood 197km/h wind and snow loads

**Rūnaka** have

development of Motuariki Island

**Management Plan** 

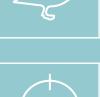
identified steps toward



Baseline monitoring of indicator species such as tuke/rock wren, lizards, and alpine invertebrates



**Rabbit reduction** operations have occurred over 17,500 ha



### 23,000+ Canada geese culled since 2018 Landowners acting together to coordinate pest control

1.9million weeds treated

**Over 12,000** 

predators removed in

suppression networks



Predator-fenced enclosure for robust grasshoppers World's first predator fence

for an invertebrate



Employment for 134 people with Jobs for Nature – Mahi mō te Taiao funding



Altitudinal limits for pest species established

### Kakī/black stilt

2018 was the second most successful breeding season ever 181 kakī released by DOC with TMAP predator trapping efforts greatly improving survival

### **Native fish** restoration

Rūnanga-led removal of over 1,000 trout (94% knockdown) to protect native fish



### Hatching

success increased for tūturiwhatu/banded dotterel (30% to 73-91%) and blackfronted terns (27-43% to 72-91%)

## Talking points What people are saying about us

"There's some massive buy-in for the Te Manahuna Aoraki Project, right across the board. I think it could be a model for the rest of the country"

**Damien O'Connor**. Minister for Land Information at launch of Jobs for Nature Funding

"The three rūnaka are committed to moving ahead with Te Manahuna Aoraki Project and keen to focus on restoration projects. Pests have to be eradicated, no doubt about that, and there needs to be more talk about how we can restore areas and species."

**John Henry,** Rūnaka representative on Te Manahuna Aoraki Project board

"We wouldn't have been able to undertake such a comprehensive rabbit control operation without assistance. It's in everyone's interest to collaborate".

Ross Ivey Landowner "I am very impressed with this ambitious programme to eliminate up to eight pest species across 310,000 hectares of the Te Manahuna Aoraki landscape. Having worked through the 'no regrets' development phase demonstrating some very innovative and successful techniques it is now exciting to commit to the full implementation phase over the next years. The outcomes that we will achieve here in this dryland landscape are a key part of achieving the Predator Free vision for Aotearoa."

**Marie Long**, Department of Conservation Deputy Director General Biodiversity

"New Zealand's natural environment is the foundation of not only our economy but also our sense of identity, and Aoraki Mount Cook and the Mackenzie Basin are special to all New Zealanders. NEXT is an impact investor and when successful, a system changer, and the Te Manahuna Aoraki Project can be a fantastic example of that".

**Bill Kermode**, Chief Executive NEXT Foundation



## Chair and Project Manager's **Report**

2022 has been a milestone year for Te Manahuna Aoraki Project, and we are delighted to present this year's annual report.

In April, the Board approved the long-term plan, marking the transition of the project from the feasibility phase to the restoration phase. The plan outlines how we hope to breathe new life into Te Manahuna Aoraki so native species and people can thrive together in a protected mainland island.

An enormous amount of work has been done over the past four years to develop a credible plan that has gained support from partners and investors. We are now focusing on eliminating – not just controlling – pests in different environments. Then we will scale operations across larger expanses of the 310,000 hectare project area. This is the first such initiative to restore a dryland landscape at such a large scale in the country. The challenges are very different from those in forested areas.

We greatly value our partnership with manawhenua, whose relationship with the land stretches back over many hundreds of years, and look forward to deepening relationships with the three rūnaka who have ancestral ties to the whenua.

Thanks are also due to the high-country farmers who continue to be highly engaged with the project. They are working hard at knocking down populations of the destructive Canada geese and are partnering with us to reduce rabbit numbers. This year, we successfully eliminated rabbits from a 75 hectare site at Patersons Terrace and we plan to develop and refine our approach over a much larger area in 2023.

Rabbits wreak terrible damage on the land with their burrowing and voracious appetites, as well as providing a supply of food for feral cats, stoats and ferrets. Shooting with thermal scopes has proven very effective, and dogs and tame ferrets are being used to help mop up the last few surviving rabbits.

In the spring of 2021, the Board visited the Takapō/ Tekapo Scientific Reserve, and it was exciting to see the resilience and regrowth of native plants after 12 years of intensive rabbit control. There were patches where native plants were beating back the high country scourge of hawkweed (hieracium).

#### Dr Jan Wright, Chair (left), and Simone Smits, Project Manager Photo: Robyn Janes

Scaling up rabbit and weed control has been largely supported by LINZ's Jobs for Nature programme. This funding has enabled us to employ over 60 people this year, to remove 1.8 million invasive plants and reduce rabbits to low levels across 17,500 hectares in areas where we are trapping to protect braided river birds.

This year we extended predator removal high into the Malte Brun Range aiming at eliminating possums across 16,500 hectares of rugged alpine environment. The initial aerial operation was successfully undertaken in April and initial indications are that very few pests remain. The team will be back in this area when the avalanche risk allows to remove the last few survivors.

This year we also launched a new website which is full of information and wonderful visual images. The site opens with kakī soaring across the screen – something we hope to see more of in real life as the project continues.

With our focus turning to elimination we have partnered with Zero Invasive Predators (ZIP). ZIP is an organisation focused on eliminating, not just controlling, pests. ZIP also works with Predator Free South Westland to eliminate possums, rats and stoats from a large area that adjoins Te Manahuna Aoraki Project over the Southern Alps.

A huge thanks must go to the Department of Conservation who have supported the project through the development stage. DOC provided the initial structure, expertise, and delivery model for our project and will continue to be a key partner. We greatly appreciate so many staff sharing their deep knowledge of ecosystems and native species.

As we have now moved into the restoration phase it was fantastic to be able to give certainty of continued employment to our dedicated project team. Without their feet on the ground nothing would be achieved.

Finally we acknowledge the strong support the project has received from so many – partners, investors, past and present Board members, past and present staff, and all others working to protect this stunning and much-loved part of Aotearoa.



**Eliminate** all significant weed and animal threats within Te Manahuna Aoraki Project

# Elimination vs control of pest animals

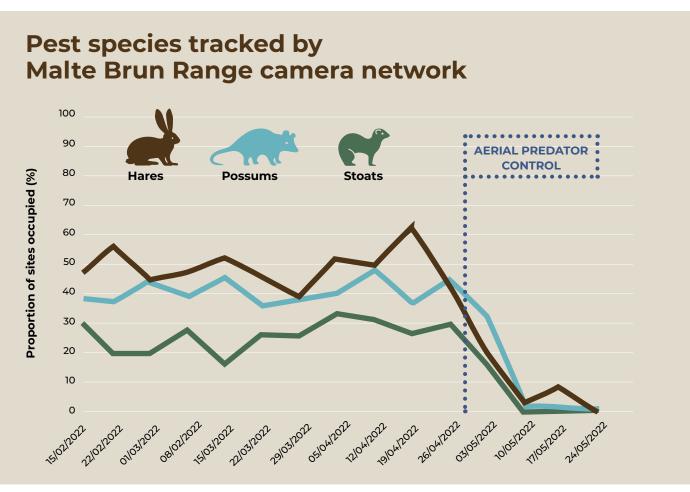
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As we move forward, Te Manahuna Aoraki Project is focused on eliminating eight small mammal pest species across the project area. These pests have significant impact on native animals and plants. Over the last 12 months, we have started pest elimination activities, and aim to scale these up over large areas.

New Zealanders have been eradicating pest species from

offshore islands, and within fenced sanctuaries, for over 60 years. But on the mainland of Aotearoa, the approach has been to control pests to low levels so that they do less damage. Often this means an initial 'knockdown' followed by ongoing maintenance. This results in a boom-and-bust impact on pest populations and protection of biodiversity. The sustainability of this approach can also be





Ranger Doug Rands in the Malte Brun range Photo: Inga Booiman



challenging, as costs are ongoing. Achieving predator freedom across all of Aotearoa (the Predator Free 2050 goal) requires a staged approach – one that employs elimination as a stepping stone between sustained control and complete eradication.

Like eradication, elimination involves removing all target pests from a defined area. The difference is that with elimination we expect a small number of individual pests from outside the protected area to cross the boundaries and reinvade. This requires ongoing surveillance to quickly detect and remove these invaders before they can re-establish a population. Ultimately, an elimination approach carries some significant benefits over control. Ecosystem resilience is increased, with native biodiversity able to thrive, and importantly the ongoing financial sustainability is significantly more robust with low ongoing costs.



## Protecting native species in the Malte Brun range

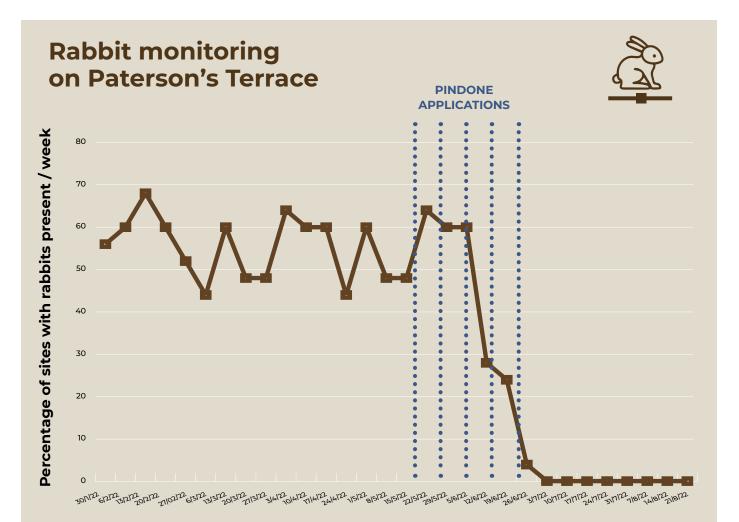
The Malte Brun Range in Aoraki Mount Cook National Park is home to rare species like tuke/rock wren, kea, and mountain stone wētā. These natives live among tussock, herb fields and sub-alpine scrubland alongside unique plants like the scree pea and the world's largest buttercup, the Mount Cook buttercup.

High possum numbers were detected in the area in 2021. Possums are known to munch through these alpine plants, and also devour insects, and the chicks and eggs of native birds.

The terrain is very rugged, so a combination of ground-based and aerial techniques are being used to eliminate predators across 16,500 hectares of the range. An aerial operation, which applied cereal baits containing sodium fluoroacetate (1080), was successfully completed over 6,500 hectares in late April 2022.

Before the control operation, we estimated there were around 1100 possums, 300 hares and 35 stoats in the area. This was based on information from our motion-activated trail cameras, and knowledge of predator behaviour and their home ranges.

Seven days after the operation the network of 85 trail cameras indicated no stoats and a small number of possums and hares remaining. Once the avalanche risk has reduced in spring, a variety of ground-based methods will be used to remove any survivors. Once possums are eliminated, natural features like the Liebig Range, Ka Tititiri-o-te-Moana Southern Alps, Murchison River and Tasman Glacier will limit reinvasion. This means, ultimately, the entire 16,500 ha range will become predator free, and will be protected in perpetuity without the need for ongoing widespread aerial toxin operations. Additionally, the site borders the 100,000 hectare Predator Free South Westland project meaning together, the two sites will form a vast predator free area across the Southern Alps.







# Rabbits are serious pests

Rabbits are significant ecological and agricultural pests across 170,000 hectares of the project area. Importantly, rabbits are also a food source for feral cats, stoats and ferrets, so high rabbit numbers lead to high predator numbers, increasing the risk to native species.

Rabbits thrive in dryland environments like Te Manahuna, eating their way through native vegetation and agricultural land, and costing farmers millions in lost production and control.

Rabbit numbers can reach staggering levels, with rabbit burrowing and browsing completely destroying native vegetation, along with habitat for native invertebrates and lizards. This changes the composition of the landscape from the plants that grow, to the stability of the land, which can leave productive land unusable.

## Rabbit elimination trial to be expanded

The project is scaling up a rabbit elimination trial at Patersons Terrace, expanding across 1,300 hectares of rabbit-prone land.

Patersons Terrace is a flat, tussock dryland site near the west bank of the Takapō/Tekapo River. Te Manahuna Aoraki Project has been intensively working in a 75 hectares area within the site, trialling an approach to eliminate rabbits and respond to any incursions, rather than merely reducing rabbits to low numbers.

The elimination method involved a combination of aerial and ground-based control, within an area that is rabbit fenced to limit reinvasion. DOC undertook a cereal pindone rabbit control operation over 1,000 hectares in 2021, which lowered rabbit numbers considerably. Then Te Manahuna Aoraki Project staff, and contractors, moved in to eliminate survivors from 75 hectares of the most rabbit-infested portion of the area.

Thermal night-shooting was undertaken, alongside the old method of ferreting, where rabbit detection dogs and ferrets wearing tracking collars are used to flush out rabbits from burrows. A trail camera network, using carrots and oats to attract rabbits, showed a few surviving rabbits. These 'hotspots' were targeted with small amounts of hand-laid pindone.

Since late June 2022, night-shooting, snow-track surveys and baited cameras have failed to detect any rabbits across the 75 hectare site and we are confident that the low-intensity application of toxin was effective at removing the small number of rabbits that were left. Some reinvasion is expected, so a detection network will alert us to any incursions and they can be quickly dealt with.

"What we're learning is if we take a strategic and smart approach, and we use the right tools at the right time, it's possible to eliminate rabbits. These methods will now be expanded across further rabbit prone areas for the benefit of native plants and animals," says Project Manager Simone Smits.

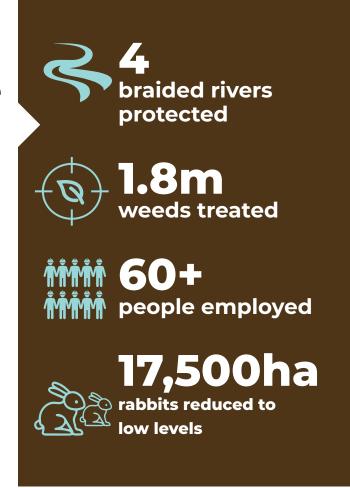
The project is now scaling up rabbit elimination over 1,300 hectares within a readily defendable rabbit fenced area. Rabbits are a food source for introduced predators like feral cats and ferrets so eliminating rabbits means pests go hungry and, in turn, become easier to eliminate. To achieve sustainability we will reduce the ongoing cost of pest control. "If we take a strategic and smart approach, and we use the right tools at the right time, it's possible to eliminate rabbits" simone Smits, Project Manager TOITU TE WHENUA JOBS FOR NATURE Funding makes all the difference

An investment of up to \$12 million from Toitū Te Whenua Land Information New Zealand's (LINZ) Jobs for Nature programme, to protect landscapes and native species across the project area, was officially launched in 2021.

LINZ manages Crown lands, including pastoral leases, and braided rivers in the project area. This financial year has seen over 60 people employed on invasive weed and rabbit control over four braided river systems. Over 1.8 million invasive weeds have been treated to improve habitat, and rabbits have been reduced to low levels across 17,500 hectares in areas where we are trapping to protect braided river birds.

The funding is providing jobs and restoring nature, and allows the project to scale up invasive weed and pest control. It will greatly improve the habitat of some of New Zealand's most fragile native plants and animals including braided river birds like the ngutu pare/wrybill and rare native plants.

Damien O'Connor. Minister for Land Information and others at launch of Jobs for Nature Funding Photo: Sean O'Brien





## Rabbit control benefits rare animals and plants

New technologies and elimination methods are not only helping to make a huge dent in rabbit numbers, but they are also benefiting native birds and plants in some of the project's biodiversity hot spots.

This year 17,500 hectares of the project area have been targeted, including the Tasman, Cass, Godley and Macaulay River valleys. Many contain kakī/black stilt nesting habitat or rare ephemeral wetland plants, which can be devastated by rabbit browsing.

The sites have trapping networks so are good areas to test the impact of reducing rabbit numbers on introduced predators who rely on the rabbits as a food source. Aerial control knocks down rabbit numbers to low levels and is then followed up with night shooting. Over 10 people were employed by contractors to shoot over 55,000 rabbits using thermal technology.

The project works in partnership with landowners to reduce rabbits to low levels. The Cass is habitat for rare native birds like kakī, and rabbit control has been complemented by a trapping network that TMAP has installed on Glenmore Station to reduce predators like ferrets. "In theory, with fewer rabbits the predators will go down as well, so there will be a big change in the biodiversity, [with] more native birds and lizards – which will be fantastic," says Will Murray from Glenmore Station.

The rabbit control has been coordinated by the project and funded by landowners and Toitū Te Whenua through its Jobs for Nature programme. Looking to the future, there is a shifting focus from control to elimination. Once areas have been cleared out, rabbit fencing can help prevent reinvasion, and any incursions responded to quickly.



## Monitoring the impact

Mākaka/native broom is a species that tends to be heavily browsed when rabbits and hares are present. Also known as *Carmichaelia australis* and New Zealand broom, it is fast-growing broom which thrives on river terraces and tussock grassland.

As part of our work to eliminate or heavily reduce rabbits in the Tasman River the project is monitoring 90 mākaka to understand what impact reducing rabbit numbers has on this native plant.

This monitoring is being undertaken through Toitū te Whenua Land Information New Zealand's Jobs for Nature funding. Monitoring will be undertaken over four years.



photo: Peter Willemse

56 people have been employed and well over 1.8 million invasive weeds treated as part of invasive weed control this year.

These invasive weeds can spread quickly and compete with native plants, preventing them from establishing. They take over, altering the course of rivers and providing cover for predators.

Landowners and DOC have been working to control weeds for decades. In 2021, Toitū Te Whenua Land Information New Zealand super-charged weed control in the project area by investing up to \$12 million through its Jobs for Nature programme to target invasive weeds and pests.

The funding has allowed Te Manahuna Aoraki Project to expand existing weed control. Tens of thousands more cotoneaster, invasive Scotch broom and willows have been boom sprayed by contractors aiming to kill all mature individuals.

Following this, a reduced programme, using low-cost techniques, will target remaining mature individuals and germinating juveniles from seed banks and boundary incursions.

The target species are willow, rowan, broom, flowering cherry, cotoneaster, Russell lupin and gorse. The project is aiming to eliminate adult plants over the next three years.

## Lupin control in just four years...





View from Canal Bridge SH8 between Twizel and Tekapo on southern boundary of project area Photo: Peter Willemse

## Willow control protects braided river habitats

The project is targeting willows in key biodiversity areas like braided rivers and wetlands where they compete vigorously with native species and change the course of waterways.

Willows absorb water and were introduced here from Europe. They are often planted to stabilise river banks and provide shelter

WEED	NUMBER TREATED		
Rowan	90,203		
Broom	69,195		
Cherry	1,783		
Cotoneaster	7,137		
Lupin	1,575,152		
Gorse	35,880		
Willow	27,858		



and shade. However, in the wrong place they can spread quickly and take over, growing rapidly and spreading through waterways, creating dense thickets and competing with natives as well as causing blockages and flooding.

"Ecologically they alter the dynamic braided river landscapes. Rivers and gravel are supposed to move and willows create a false stability which doesn't allow the river to be dynamic," says DOC's weed ranger Peter Willemse.

Thousands of willows have been sprayed from the air with another 27,000 poisoned through ground control. Peter says mapping has shown how important it is to target willow sources in river tributaries on public and private land as stem fragments are spread via water and almost all cut stems root where they fall.

"It's pretty obvious where the willows are coming from and they are spreading into the sensitive braided river habitats. That's why we need to remove them from those sources to benefit the areas we want to protect."





## Biocontrol agents help broom control efforts

#### A big push to eliminate adult broom plants has seen thousands sprayed and nearly 70,000 individual plants treated.

Broom is a scrawny shrub that multiplies quickly, competing with natives and rapidly changing the landscape. It has an explosive seed mechanism and can quickly colonise braided riverbanks and tussock grassland areas.

An infestation at Jollie River has spread downstream to the Tasman River Delta towards Lake Pukaki. This year we sprayed the main infestation and then treated individual plants. An infestation at Boundary Stream near Takapō/ Tekapo was also targeted.

Broom seed banks can last for over 90 years so a small number of broom have been left as host plants for biocontrol agents. These biological controls, including broom seed beetles and gall mites, were released by the project and DOC to attack and weaken the broom.

"We have got rid of the worst of the broom sources. The bugs are our allies and they will help us hold the ground by reducing the vigour and spread of the broom seeds that remain," says weed control ranger Peter Willemse.

## PREDATOR FENCING Trial fences coping well in extreme conditions

The project is trialling three different fence designs to understand how they stand up to the high winds and snowfall the project area can throw at them. The prototypes range from 1.1m

to 1.8m high and use wooden or iron posts.

To date, all three fences are holding up to the extreme alpine environment.

A webcam and weather station monitoring conditions has so far recorded the highest wind gust at 197.4 km/hr in December 2019. However, for a short time this year the recording systems stopped transmitting during extreme weather, so we may have surpassed this high.

The project has also been exploring whether natural features like mountains, rivers and glaciers can be used to limit pests reinvading once removed from a landscape. This looks to be an option for all but a short section of the project's easternmost boundary, so no decisions have been made as to whether any fencing will be necessary.



**Restore and protect** 

native biodiversity

## A unique range of pests attack our native species

OBJĚCTIVE

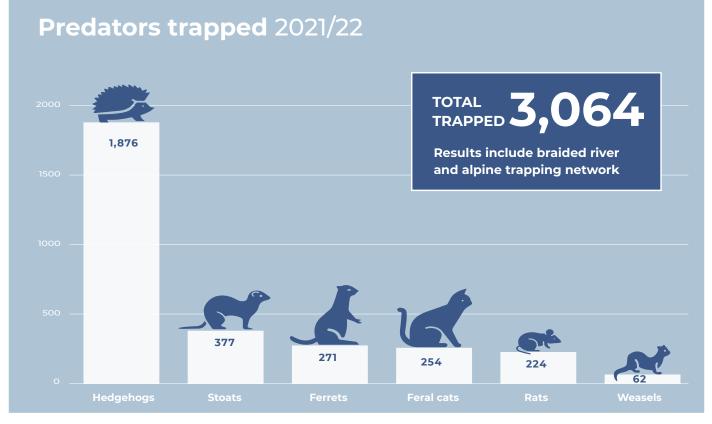
Te Manahuna Aoraki Project is dealing with a unique set of pests that have adapted to live in the harsh dryland and alpine environments.

Stoats, hedgehogs, ferrets and feral cats swarm across the landscape, robbing the nests of braided river birds and killing lizards and invertebrates. In the front country tussock grasslands, rabbits chew through native vegetation and Canada geese damage pasture and waterways, while possums and hares browse the rugged alpine slopes.

There are no ship rats in the project area, but Norway rats are found in the wetlands and tarns of the Cass, Godley and Tasman River Valleys.

Stoats are deadly and relentless hunters and they are regularly seen at altitudes as high as 2,050 m. Research has confirmed high numbers of hedgehogs, and trail cameras have caught these pests raiding braided river bird nests and eating eggs. A 2009 report in the New Zealand Journal of Ecology found a single hedgehog gut containing 283 wētā legs.

The project is targeting these pests in a variety of ways. We've more than doubled DOC and Project River Recovery's existing trapping network in the Tasman River Valley and extended into the Godley, Macaulay and Cass. The trapping network now covers 60,000 hectares – that's over 80% of the kakī/black stilt's range and also home to species like ngutuparore/wrybill and tūturiwhatu/banded dotterel.



### **HEDGEHOGS**

## Harder to trap than we think?

A research project studying hedgehogs in tussock dryland and braided river environments will result in new recommendations on the best way to trap the invasive pests.

Te Manahuna Aoraki Project field ranger Tom Goodman has spent two summers studying hedgehogs in the project area as part of his MSc in Ecology. The research is part of a larger project involving Otago University, DOC and Manaaki Whenua/Landcare Research.

He lived nocturnally, searching for hedgehogs in two sites between midnight and 6am with a handheld thermal monocular. Using mark recapture methods, he identified and marked individuals and analysed thousands of photos from 100 motionactivated cameras to understand their density.

Modelling revealed a concentration of 28–37 hedgehogs per square kilometre in tussock drylands, with this dropping to six over the same area on riverbeds. The study is also looking at how the pests interact with traps and findings will be used to develop best practice for hedgehog control.



Hedgehogs are a serious pest in the Te Manahuna Aoraki Project area with nearly seven thousand trapped since the project began in 2018. "The perception has been that hedgehogs are really trappable, and perhaps a bit slow and stupid. But I think that's because there's so many out there. If we're trapping heaps, we're missing plenty more. What I'm seeing is that they're smarter than we give them credit for and a serious threat," says Tom.

### TARAPIROHE/BLACK-FRONTED TERN Large-scale predator control is vital

A ground-breaking study GPS tracking tarapirohe/ black-fronted terns has highlighted the importance of landscape-scale predator control to protect the endangered native.

Terns are seabirds, and the tarapirohe is unusual as it lives and breeds inland, only visiting the coast to feed in autumn and winter. They are classified nationally endangered, with an estimated 5,000– 10,000 in the wild. Lincoln University Master's student Fraser Gurney attached GPS trackers to 34 of the birds from colonies in the Cass and Upper Ōhau rivers.

This is the first time black-fronted terns have been GPS tracked. As the birds weigh only around 90 grams new technology has only now made it possible to find trackers small enough to use.

Early indications are that the birds have a far greater range of habitats than previously thought, and regularly travel over different river catchments. One bird travelled 175 km in a day, and Fraser noticed an unusual behaviour during nesting, with some birds travelling up to 20 km from the colony to roost – leaving one partner on the nest.

"This is really interesting behaviour which hasn't been seen before. We think they are roosting with



Photo: Renke Lunken

other birds, but they may be going back to the place they hatched. It brings home the importance of predator control across big areas, as the birds are vulnerable when they roost in sites away from predator management areas".

Our trapping network now covers 60,000ha. The next focus for tarapirohe/black-fronted tern study will be looking closer at what the birds are doing, and how they use particular habitats. This research is supported by DOC, Project River Recovery, Lincoln University and Te Manahuna Aoraki Project.

### **DETECTION DOGS**

## Meet our paw patrol

Conservation dogs have continued to be an important 'tool' in our work to eliminate a variety of pests across the project area. Handler Adriana Theobald is working with a number of species specific dogs to help in our clean-up and reinvasion response after initial control.





Zach New Zealand's only hedgehog detection dog



In March 2022, two-year-old Zach gained his interim certification with an aim to becoming New Zealand's only certified hedgehog detection dog as part of DOC's Conservation Dogs programme. Zach is also known as Professor Zachariah Q Wigglebottom for his tendency to wiggle his rear end with excitement when he finds a hedgehog. Hedgehogs can be reluctant to interact with traps, so Zach has been used alongside traps and thermal hunting to eliminate hedgehogs. Research this year found dogs are a cost-effective hedgehog removal tool when the pests are at low densities. Adriana is hoping Zach will gain full certification in late 2022. Adriana, Zach, and their impressive work will feature on television programme Dog Squad in 2023.

Julius Sniffing out feral cats



Mixed-breed hunting dog Julius is a feral cat detection dog. Feral cats are wily, highly mobile and have large home ranges. When we get a trail camera sighting, Julius and Adriana can be brought in to respond while scents are still fresh. He is useful at finding those hard-to-detect feral cats that are avoiding other methods of control and has been helping locate feral cats as part of our GPS monitoring research.

### **KAKĪ RECOVERY PROGRAMME**

## 'Good signs' but fluctuating population shows rare bird is still very vulnerable

An increase in kakī pairs in the wild is a sign the black stilt population is healthy, however the rare wading bird is still vulnerable to seasonal trends, with a drop in the number of adult birds.

DOC's Kakī Recovery Programme has brought the black stilt back from the brink of extinction since a low of 23 birds. Rangers collect kakī eggs in the wild. They are incubated and hatched at the breeding centre near Twizel and the Isaac Conservation and Wildlife Trust in Christchurch, before being released the following August as sub-adults.

Since 2018 Te Manahuna Aoraki Project has been working to provide a safer habitat for kakī. Invasive weed control is improving their habitat, and a trapping network is now reducing the risk from stoats and feral cats across 80% of their range. Project partners Re:Wild have also contributed funds to build a new brooder and aviary.

DOC's latest audit found 143 adult kakī in the wild, following the record high of 170 adults in 2020. Team leader Claudia Mischler says it's normal for the wild population to fluctuate and she is heartened to see the number of pairs and chicks being hatched in the wild increasing – a good sign the population is healthy.

163 sub-adult kakī were released in August on the Tasman and Godley Rivers. The survivors will be counted in the adult population next spring. Landowners are also supporting kakī recovery, allowing trapping and alerting DOC when they find wild kakī.



## LIZARDS Monitoring 'the bees of the high country'

The second year of lizard monitoring is providing good baseline data on the range and populations of skinks and geckos across the project area. Lizards are the bees of the high country, dispersing seeds and pollinating natives.

Four sites at different elevation and habitat were monitored. 50 pitfall traps at each site were baited and any lizards found in the traps over four fine days were recorded and released. While the second year of monitoring saw an increase in numbers of Southern Alps gecko and Roamatimati skink this could be because of different weather conditions and timing.

Three of the four sites do not have predator control so this baseline data will allow the project to assess how threatened lizard populations respond to landscape scale predator management as we extend our predator elimination work. A third year of monitoring will take place in 2023.

Monitoring lizards	NAME	2021	▲/▼	2022	STATUS
	<b>Mackenzie skink</b> Oligosoma prasinum	۱		3	Nationally vulnerable
	<b>Scree skink</b> Oligosoma waimatense	7		6	Nationally vulnerable
	<b>Southern Alps gecko</b> Woodworthia "Southern Alps"	69		87	Declining
(	<b>Roamatimati/Southern long-toed skink</b> Oligosoma aff. longipes "southern"	44		103	Declining
	<b>Southern grass skink</b> Oligosoma aff. polychroma Clade 5	4		۱	Not threatened
	<b>McCann's skink</b> Oligosoma maccanni	15		0	Not threatened



### **INSECTS AND LIZARDS**

## Tekapo ground wētā find sanctuary in the pest-free enclosure

Excluding predators from the project's enclosure at Patersons Terrace has seen a dramatic increase in wētā and lizards, but robust grasshopper have been slow to respond.

The 6,000 m<sup>2</sup> fenced area was built in 2018 to study the nationally endangered robust grasshopper. Hedgehogs, rats, stoats and ferrets were all excluded from the enclosure to understand the impacts of pests on the grasshopper's survival.

In 2021, DOC staff were removing skinks from the enclosure and came across a moderately large population of Tekapo ground wētā (*Hemiandrus 'furoviarius'*). First discovered in 1992, the Tekapo ground wētā is one of our smallest native wētā and classified nationally critical. It is found only in the Mackenzie Basin along river margins and associated outwash plains and was thought to be on the edge of extinction.

Otago University Masters student Madeline Pye has studied the wētā over the last year. From 20 nights of trapping data she found there were, on average, five times as many Tekapo wētā inside the fence as outside. Hedgehogs are seen as a significant predator.

Tara Murray, DOC's science advisor on invertebrates, says the data provides compelling evidence of a benefit of the predator-exclusion fence to the ground wētā population.

Skinks have also done well in the pest-free enclosure, however more time is needed to understand the benefits of predator control on the robust grasshopper population.

Robust grasshoppers (*Brachaspis robustus*) are endangered and normally only found in the open gravel riverbeds of the Mackenzie Basin. Despite being one of the largest known robust grasshopper populations, the Patersons Terrace population is still very small.

Tara Murray says grasshopper numbers in the fenced area remain too low for any impact of





predator exclusion to be interpreted with confidence. However, given the rapid and significant increase in the Tekapo ground wētā population she does expect it to benefit the robust grasshopper in time.

DOC is now considering relocating more robust grasshoppers inside the predator free enclosure to monitor survival of a larger number of individuals. Given the long lifecycle of the robust grasshopper and slow response time DOC is planning to monitor for another six years.



Tekapo wētā

## Baseline monitoring gives better understanding of populations

Large-bodied invertebrates have been studied for three seasons now, with plans to use the baseline data to better understand the impacts of predator elimination on insects.

Te Manahuna Aoraki Project and Department of Conservation staff have now collected data from 15 sites at various altitudes and habitats. Counts of giant scree wētā, mountain stone wētā and grasshoppers were made along fixed transects, while a variety of smaller insects like ground beetles and spiders were detected using pitfall traps. These relatively large, grounddwelling invertebrates were selected because they are considered the most likely to be preyed upon by mammalian pests. Tracking tunnels baited with peanut butter were also used to detect wētā as these insects are big enough to leave identifiable footprints.

Species like wētā have been around since the time of the dinosaurs. Insects are part of nature's food chain – birds and lizards eat them, and the insects eat plants and help with pollination. The baseline data collected on the various insects is now being analysed. It will be used to work out which insects will be most useful to monitor at regular intervals in the future to compare with the baseline data and tell us about the impacts of the removal of pests.



## NATIVE FISH Invasive trout out by 2027

### Work is ongoing to restore mahika kai and freshwater values by eliminating trout from Fork Stream.

Fork Stream is a beautiful spring fed stream. It is important habitat for native species like the nationally threatened bignose Galaxias macronasus and upland long-jaw galaxias Galaxias prognathus 'aff. Waitaki' and the more abundant alpine galaxias Galaxias paucispondylus. A few large koaro are also present, the original mountain trout. Introduced trout not only compete with native fish for food and habitat they also feed on the native galaxias.

Rūnaka led the first stages of trout removal in the 2020 season, with electric fishing resulting in a 90% knockdown of the invasive trout. A weir built by Environment Canterbury prevents trout reinvasion. Last season ECan and DOC monitored the impact of the trout removal work.

It is hoped this project will see invasive trout completely removed by 2027, resulting in improvements in distribution and abundance of native fish, similar to what has happened in a neighbouring spring. Once this is achieved we can work with manawhenua to explore the possibility of returning tuna (eels) to the awa.

This project is a great example of collaboration between Nga Rūnuka , DOC, ECan, New Zealand Defence Force, Glenmore Station and Te Manahuna Aoraki Project.

### **NATIVE PLANTS**

## World-renowned ecosystems from the mountains to the drylands

Native plants in the project area have evolved over thousands of years to live in the harsh mountain and tussock dryland environments. Te Manahuna is one of the best examples of an intact ecosystem that connects the mountains to the valley floor.

The plant communities associated with these rare ecosystems are incredibly resilient and have been shown to recover when significant threats like browsing rabbits are removed. The project's invasive weed and pest elimination programmes will give the native plants and animals a chance to once again thrive.

### CORAL BROOM An iconic desert plant Coral broom is a stunning desert

plant that is perfectly adapted to its habitat. It is one of 23 species of native

broom and found in the dry montane and subalpine shrub and grasslands.

It grows in dry exposed areas with its leafless branches carrying out the functions of leaves and giving protection from the heat of the midday sun. While it can grow up to two metres tall, pests like hares, rabbits and other browsing animals usually prevent it from reaching this height. Our work to eliminate hares and rabbits will help the survival of coral broom.

### INLAND PEPPERCRESS

One of our rarest plants Inland peppercress (*Lepidium solandri*) is one of the project area's rarest and most threatened plants. It is a herb plant that grows

in tussock grassland and bare hillsides in Canterbury and Otago and is so rare there are less than 1,000 plants known in the wild.

Browsing animals and habitat loss are the biggest threats to its survival so a reduction in rabbit numbers, and invasive weed control should help this Nationally Critical native. **Enable** iwi, landowners, and local communities to participate in, promote and maintain the transformational changes of Te Manahuna Aoraki Project

## Mahika kai at the heart of manawhenua culture

For hundreds of years Te Manahuna has provided for whānau from Te Rūnanga o Arowhenua, Te Rūnanga o Moeraki, and Te Rūnanga o Waihao.

Te Manahuna is steeped in cultural and spiritual significance. Manawhenua whakapapa to their tūpuna, Aoraki, who is at the heart of creation traditions and seen as the link between the supernatural and natural worlds.

Mahika kai remains at the heart of culture, identity and practice. While their permanent settlements were on the east coast, Te Manahuna (Mackenzie Basin) and its well-stocked lakes, were the places where the tūpuna (ancestors) visited, hunted, fished and gathered on a seasonal basis.

The tūpuna had a network of travel routes. The valley of the Waitaki River was a well-trodden hunting and fishing path, as was Te Kopi-o-Ōpihi (Burkes Pass) or Te Manahuna (the Mackenzie Pass).

As they journeyed whānau left many to man remarkable works of rock art. Images, ranging from abstract forms, to bird and animal life and people, were carved or drawn at resting places. This rock art provided some of the inspiration for Te Manahuna

Aoraki Project's tohu (logo), designed by renowned artist Ross Hemera.

Some would journey further, along aro tawhito (ancient trails) to reach Hāwea and Wānaka, or Te Tai o Poutini (West Coast). The name Te Manahuna means place of enlightenment. As a seasonal gathering point, it was an important place of relaxation and enjoyment.

The practice of mahika kai represents generations of learning and teachings about the best places to gather resources and ways to process them. At Te Manahuna, whānau would gather tuna (eels), native ducks and weka. Tuna and weka were traditionally gathered between May and August when they had high levels of fat which helped in the preservation process.

Te Manahuna Aoraki Project rūnaka board

member John Henry says the tūpuna had a huge knowledge. "They would build mōkihi, which were rafts made from raupō or reeds, to float what they had gathered back down the river to the coast. Hardly anyone knows how to make mōkihi any more and we are losing the traditions and learnings of mahika kai," he says.

John Henry says the last 150 years saw things change very quickly. Manawhenua lost access to some of the sites for traditional kai gathering. Hydro schemes raised lake levels, flooding traditional nohoanga (campsites) and

makatea (tracks). Dams impeded the migration of species like tuna, and drainage and irrigation schemes resulted in the loss of habitat for natives.

"The loss of environment caused the loss of mahika kai, and a loss of whakapapa to the area. But while the landscape changed dramatically its significance to manawhenua has not," says John.

"While the landscape changed dramatically, its significance to manawhenua has not"



## Motuariki island restoration

For Manawhenua, Te Manahuna Aoraki is steeped in cultural and spiritual significance. All Ngāi Tahu whakapapa to their tipuna, Aoraki, who is at the heart of the creation traditions of Te Waipounamu (the South Island).

In the middle of Lake Takapō/Tekapo lies Motuariki Island. According to Māori oral traditions the earliest people to inhabit Te Waipounamu were Hāwea, Rapawai and Waitaha. Te Rapawai established a pā site on Motuariki, and it was used for some time as a permanent living base.

Te Rūnanga o Arowhenua, Te Rūnanga o Moeraki, and Te Rūnanga o Waihao will lead the restoration of Motuariki Island. A Motuariki Island restoration plan will be developed in consultation with the broader community and guide future work, including assessing the archaeological features of the island, removing exotic trees, and planting native species.

## Restoration a huge emphasis for board member

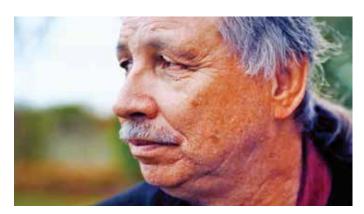
For John Henry, the restoration of the Te Manahuna environment is linked to the restoration of mahika kai and whakapapa. "In the old days, our people had a traditional way of doing things. But the whole environment changed, and so did our way of life," he says.

John has been the rūnaka representative on the Te Manahuna Aoraki Project Board since 2021. He was Chair of Te Rūnanga o Arowhenua for over ten years.

Born and bred in Temuka, John left his papa kāinga briefly to train as a carpenter in Christchurch. Returning home, one of his first builds was his family home where he lives with whānau today. Much of his life has been spent working on behalf of the people of Arowhenua, Waihao and Moeraki. John believes in looking after the whenua and awa and wants to reestablish traditional mahika kai rights to gather food resources in Te Manahuna.

He says in the old days manawhenua knew where resources were, but as time passes Matauranga Māori (knowledge) is being lost. John sees heaps of synergies and opportunities for the project and rūnaka and looks forward to seeing rangatahi forge stronger connections with the whenua again.

"The three rūnaka are committed to moving ahead with Te Manahuna Aoraki Project and keen to focus on restoration projects as we move forward. The pests have to be eliminated, no doubt about that, but there



John Henry Rūnaka Director

needs to be more talk about how we can restore areas and species."

John is particularly interested in restoring habitat to help the return of species like weka which haven't been seen in the project area since the early 1900s. Te Manahuna Aoraki Project has committed to explore the possibility of weka reintroduction as we better understand the ecological balances in the project area.

"Without the habitat the weka won't stay. It's a long term goal; it's going to take years to get them to stick around," says John. The three rūnaka are also working with the project to restore mahika kai and freshwater values by eliminating trout from the tributaries of Fork Stream. 95% of trout were removed above a weir built by Environment Canterbury to prevent trout reinvasion. Other projects include the restoration of Motuariki island.

John has many other roles, including Ngāi Tahu Representative for Central South Island Fish and Game, Chair of Mataitai Arowhenua Committee, Cultural Consultant with AEC Ltd, and a representative on the Opuha Flow Release Advisory Group.

Collaring enables us to track goose movements

### Tracking Canada geese movements

The first six months of data from Canada geese is giving an insight into how far the pests travel and when.

The project caught 30 geese in January and attached solar powered GPS collars to them. Of those, eight were killed around the duck shooting season, and two more have died of natural causes. Six months on, we are still tracking 20 geese.

The geese were collared at Lake McGregor and near Twizel. In the first six months they have mainly moved around the Basin, with some venturing south of the project area to Ōhau. Originally from North America, they live on high country waterways in summer before heading to breeding grounds in the headwater valleys of rivers flowing from the Southern Alps in spring.

The tracking information will help determine how effective culls are, and also provide information about where the geese move to.

<sup>D</sup>hoto: Annemieke Hendriks

## Landowners collaborate to reduce geese impact

The number of Canada geese culled in the project area this year is significantly down from the year before, a sure sign that collaborative control is making a difference.

Canada geese are a major pest in the Mackenzie because they foul waterways, devour native and exotic grasslands, and destroy the habitat of threatened species like kakī/black stilt and crested grebe. Over the past three years, landowners have led control operations to humanely reduce the geese population, with support from the project, DOC and Toitū te Whenua LINZ.

Landowner Hamish Mackenzie says this year around 30 people, mostly landowners, were involved in culls. Around 3,690 geese were

humanely culled, compared to over 9,000 the year before. "I definitely feel we have broken the back of the problem in the TMAP area. Huge credit to everyone involved because it is a big undertaking. It's important we all keep going, and keep motivated and it's great to have the support from the project. Between us, we are making it work," he says.

Hamish is heartened to see farmers from outside the project area, in Ahuriri and Ōhau, beginning to collaborate on culls as well as these could be source populations. "People are cottoning on to what we are doing, and seeing it make "I definitely feel we have broken the back of the problem in the TMAP area. Between us, we are making it work"

a difference so they are doing a few culls themselves. I feel like we are setting a bit of a precedent".

Looking ahead the plan is for Canada geese to be managed through continued landowner-coordinated culls annually during nesting and moult periods.

## Support for local group of trappers

### A local trapping group has started protecting native birds nesting near the eastern side of Lake Takapō/Tekapo.

The Lake Tekapo Wildlife Managers started trapping in an area adjacent to SH8 and Lake Tekapo Regional Park in 2021. The area is ideal habitat for native birds like kakī/black stilt, tūtiriwhatu/ banded dotterels, poaka/pied stilt and kāmana/crested grebe.

One of the coordinators, Walter Speck, says there are about 10 members with a variety of backgrounds, from a nurse to an outback tour operator, and a Harvard lecturer. "The dominant hair colour of the group is grey, but everyone is welcome and during school holidays we also have



children helping out," he says.

Walter says while trapping is a good way to protect wildlife, there is also a social side and the group is enjoying learning more about the area. "It has a good feel about it, different generations, different people, different backgrounds, one common goal. It becomes

a bit 'addictive' - once you catch something you get a bit of a boost".

Since January 2021, the group has caught 144 pests, the majority being hedgehogs, ferrets and feral cats. While the peninsula is not in Te Manahuna Aoraki Project area, we have helped by providing traps and advice.

## Identifying the pests

A team of local pest detectives, including keen Twizel locals, have pored over millions of trail camera images to help the project protect native animals and plants.

There are 166 motionactivated cameras in operation at two sites across the project area. A lowland site at Patersons Terrace is the location of a rabbit elimination trial and we are also trying to rid an area high in the Malte Brun Range of possums.

The cameras take photos of pests that are attracted to baited auto-lures. This gives us a true picture of how many pests - especially rabbits, hedgehogs, possums and feral cats - are roaming the sites, before and

Coraline Scully: "I can be part of making Aotearoa safer for native species"



after control operations.

Our team of pest detectives do an amazing job identifying the images which can range from pests, native wildlife, or even a blade of grass blowing in the wind. Keen rock-climber and tramper Coraline Scully says it doesn't take long to learn to spot invasive predators and in one day she managed to go through 100,000 images. "I really enjoy it -I can be part of making Aotearoa safer for native species," she says.

Twizel retiree Glenys Moore got

involved after seeing an article in the Twizel Update. "I thoroughly enjoy it. I can't tramp up the hills putting out traps, but this is something I can do," she says.

Once the SD card images have been tagged by the pest detectives, they are downloaded and the data is digitally extracted. The information is used to understand how many predators we are dealing with, how many survivors remain after a control operation, and whether there is reinvasion.



## Locals still checking traps

Aoraki Mount Cook Village locals and volunteers from as far away as Christchurch continue to check around 20 trap lines in the park.

It has been a challenging couple of years for Predator Free Aoraki as Covid-19 saw many people leave the village because of the downturn in tourism. However, a core group of around a dozen volunteers are regularly checking the back country traps to help protect native birds like kea and tuke/rock wren. Members of the Canterbury Mountaineering Club and local company Alpine Guides also help out. The traps lines protect the Hooker Valley, the Sefton Ridge and Sealy Range, with some becoming inaccessible during winter.

## Protecting Te Manahuna with others

A range of programmes led by other agencies are operating across Te Manahuna Aoraki Project area to protect the unique landscapes and species. These projects have synergy with our own work programme and allow us to focus on controlling a different suite of weeds and pests.



### 1. Project River Recovery

Project River Recovery has been protecting and restoring braided river and wetland habitat to help native plants and animals, in the project area and beyond, for over 30 years.

The project is managed by the Department of Conservation and funded through a compensatory agreement with Meridian Energy Limited and Genesis Energy.

Project River Recovery's (PRR) work includes intensive weed control, predator control, construction of wetlands, and research and monitoring programmes in the upper Waitaki basin. Project River Recovery works closely with Te Manahuna Aoraki Project and DOC's Kakī Recovery Programme on predator and weed control in the Tasman River.

Project River Recovery's work complements the work being undertaken by TMAP. PRR Senior Ranger Dean Nelson says Project River Recovery has been able to continue its ongoing programme of weed control in areas outside of the TMAP operational area. These include Lake Poaka, Lake Ōhau, Ruataniwha, Tern Island, Lindis Pass and Ahuriri.

For the last 12 years PRR has undertaken intensive trapping around the tarapirohe/black-fronted tern colony in the upper Ōhau River. This year's hatching success was one of the highest on record with 49 of the 56 nests hatching at least one chick.

This year Project River Recovery extended protection for the kāmana/ Southern crested grebe population at Lake Alexandrina. Kāmana are a nationally vulnerable native and are unusual in that their nests are made of aquatic weeds and sticks which float or semi-float. This season virtually all of the population started breeding in a short 50 metre section of an outlet stream, reaching a peak of 60 nests.

### 2. National Wallaby Eradication Programme

### Wallaby are continuing their spread into the project area, but a multi-agency programme believes it is making inroads in controlling the imported pest.

The \$27 million National Wallaby Eradication Programme is a partnership involving Environment Canterbury, the Ministry for Primary Industries, DOC, Toitū te Whenua LINZ, Federated farmers, rūnanga and landowners.

The Bennett's wallaby is sometimes described as a giant rabbit and was introduced from Australia, mainly for sport and the value of their skins. It weighs up to 24 kg and eats six times more than a rabbit.

Wallaby were first confirmed north of the Macaulay River in 1999. They are a pest that eat their way through native bush and tussock grasslands, competing with natives species for food and eating rare native plants. Thick wilding pine and dense matagouri on steep faces provide ideal wallaby cover.

ECan's Brent Glentworth says most wallaby found in the project area are still around the Macaulay River near the containment boundary. However more are being seen around Stony Creek and Jollie River



towards Lake Pūkaki. "Additional funding is allowing us to look for them in new places. We are making some gains and want to continue maintaining the high level of work outside the containment area," he says.

The Eradication Programme is undertaking ground search and destroy work outside the 900,000 hectare containment area. It also continues to control known breeding populations and search wider areas to understand where wallaby may be spreading.

### 3. National Wilding Conifer Control Programme

Wilding conifers are a huge problem in the project area and across New Zealand. They cover more than 1.8 million hectares of the country and it's estimated that 20% of Aotearoa would be covered in unwanted wilding conifers within 20 years if they were left to spread.

Wildings quickly overtake natural landscapes. They grow much faster than native trees so plants like mountain flax and coprosma, which provide berries and nectar for native birds, don't grow. They reduce water flow and can form a monoculture within years.

The National Wilding Conifer Control Programme (NWCCP) was established in 2016. It aims to prevent the spread of these tree pests and to progressively remove them from much of the land already invaded. The programme is a partnership between central and local government agencies with the farming and forestry industries, landowners, and the community sector. Many Te Manahuna landowners are members of the charitable trust Wilding Free Mackenzie.

Since 2016, the government has pledged \$137 million to tackle wilding conifers, with nearly half the funding going to the Canterbury region. Landowners contribute 20% to help fund any ground control work.



# LOOKING AHEAD

Te Manahuna Aoraki Limited was established as a charitable trust in 2018. The project was formed through partnership and this collaboration is key to our long-term success. With Manawhenua, government agencies, runholders, philanthropists and the community working together, we aim to transform the ecological prospects of the upper Mackenzie Basin and Aoraki Mount Cook National Park.



In April 2022, Te Manahuna Aoraki Project Board approved the long-term plan, which provides the blueprint for the project into the future and specifically over the next five years.

On July 1 2022, Zero Invasive Predators (ZIP) was engaged by the Te Manahuna Aoraki Project Board to take on responsibility for the development and delivery of the project. This involves designing, planning and implementing all technical and operational aspects. The project team is now employed or contracted by ZIP.

ZIP has a track record in eliminating pests, and also works with Predator Free South Westland on a project that borders Te Manahuna Aoraki Project high in the Southern Alps. ZIP was founded by the Department of Conservation and NEXT Foundation.

Pest elimination will be the core activity and contribution to the restoration of this unique area. In collaboration with others, the project plans to prove pest elimination across different environments, before scaling operations across larger portions of the project area.

Working within natural boundaries that limit reinvasion, ultimately our work will result in a vast predator free mainland island. At the same time, we will continue to carry out extensive weed control and develop initiatives to enhance sites of ecological and cultural importance.

### LOOKING AHEAD

# What will success look like?

We envisage that by the end of the 20-year period, the unique ecosystems of Te Manahuna Aoraki Project will be transformed into thriving and resilient systems, with diverse and abundant native communities that are connected from the mountains to the drylands.

Eight small mammal pests (feral cats, stoats, rabbits, hares, ferrets, hedgehogs, possums, Norway rats) will be eliminated from Te Manahuna Aoraki Project area, creating a 310,000 hectare mainland island free of significant predators. Population reestablishment will be prevented by (a) high elevation landforms of Te Manahuna Aoraki Project boundary paired with efficient incursion detection networks and timely response methods, and (b) the Takapō/ Tekapo canal and associated low-cost incursion detection networks.

Rūnaka-led projects will have restored the mauri of precious waterways and sites of cultural significance,





Alpine grasshopper

and the traditional harvest of mahika kai such as tuna (longfin eels) will have been revived.

hoto: Inga Booima

The mature individuals of all transformative weeds (Russell lupin, scotch broom, gorse, rowan, cotoneaster, flowering cherry, willow) will have been eliminated from key biodiversity hotspots within the project area. Several other pests that threaten agricultural and/or conservation values (Canada geese) will have been significantly suppressed.

There will be a coordinated approach by land managers operating within Te Manahuna Aoraki to undertake environmental activities that complement each other and lead to improved ecosystem restoration outcomes.

The community will be passionate advocates of the project and its achievements and will ensure work continues into the future. Te Manahuna Aoraki Project will be celebrated as an outstanding conservation collaboration, providing valuable knowledge that is informing the work of similar programmes across the country.

### LOOKING AHEAD

# Te Manahuna Aoraki Project Long Term Plan

### **OBJECTIVES**

Eliminate all significant animal and weed threats within Te Manahuna Aoraki Project Restore and protect native biodiversity

Enable iwi, landowners, and local communities to participate in, promote and maintain the transformational changes of Te Manahuna Aoraki Project





### PRINCIPLES

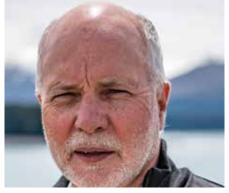


### GOVERNANCE

# The Board

Te Manahuna Aoraki Project is governed by a board which meets four times a year. This year the board farewelled Jerome Sheppard, who left his role with Toitū te Whenua Land Information New Zealand. We welcomed James Holborow and Rynee de Garnham.





Devon McLean Director



**John Henry** Rūnaka Director



Julia Mackenzie Director

Chair



**Mike Slater** Department of Conservation senior liaison officer



**Stephen Phillipson** New Zealand Defence Force representative



**Rynee de Garnham** Rūnaka Observer



James Holborow LINZ representative



# Board observer works to protect future of taonga species

Rynee de Garnham still remembers the first time she saw kakī released into the wild back in 2018. "Watching their first time flying, as they went higher and higher, it was such a privilege to be there," she says.

Rynee is tautoko to director John Henry as rūnaka observer on the project board. She has whakapapa to Waihao, Arowhenua, and Moeraki rūnaka, and grew up in Timaru. While she regularly holidayed in Te Manahuna she says she didn't know much about kakī. So, it was very special to be invited along with her Waihao whānau to help catch the black stilt at the Kakī Recovery Programme aviaries near Twizel, and then help release the juvenile birds.

"My oldest son actually got to help catch kakī for release. We learnt so much about how threatened they are and as the years go on I have more appreciation of the challenge to keep this species going."

Later in 2018 Rynee visited the kakī brooder with then

Conservation Minister Eugenie Sage as part of the launch of Te Manahuna Aoraki Project. While there she saw a long-legged kakī chick hatch. That experience

It is only by seeing taonga species like kakī, and hearing how close they came to extinction, that rangatahi can understand how quickly something can be lost, and how to save them

prompted her to become more engaged in protecting these rare birds.

Through her work as a teacher aide she arranged for students at

Arowhenua Māori School (where one of her tūpuna was the first ever pupil) to come to future kakī releases.

Rynee believes it is only by seeing taonga species like kakī, and hearing the story of how close they came to extinction, that rangatahi can understand how quickly something can be lost, and how you can work to save them.

Daughter Hadley shares her mother's interest in conservation and has helped TMAP rangers band braided river birds in the field. "Being able to catch that spark at such a young age, and nurture it, has been awesome. Kids like her are our future leaders, and growing that love for the whenua and Te Taio is so important," says Rynee.

She is also the Ngāi Tahu representative on the Kakī Recovery Programme. As a rūnaka observer on the board she is excited about the opportunities to help her people engage more in the whenua and with Te Manahuna Aoraki Project.

# The team



**Stephen Hall Project director** 



**Simone Smits** Project manager



**Nick Foster** Predator ecologist



**Tom Smits** 



Jolene O'Connor Field ranger



Julia Gibson Outcome monitoring ranger



Adriana Theobald Conservation dogs



**Doug Rands** Field ranger



**Peter Willemse** Senior weeds ranger



**Geoff Woodhouse** Field ranger/contracts lead



Chloe Underwood Administrator



Leigh Cooke Accountant



**Richard Maloney** Technical advisor



**Charlotte Patterson** Data analyst





Inga Booiman Project team supervisor

**Robyn Janes** 

Communications manager

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**FINANCIAL STATEMENTS** 

# Te Manahuna Aoraki Limited

For the year ended 30 June 2022

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### Independent auditor's report

To the Directors of Te Manahuna Aoraki Limited

#### Our opinion

In our opinion, the accompanying financial statements of Te Manahuna Aoraki Limited (the Company), present fairly, in all material respects, the financial position of the Company as at 30 June 2022, its financial performance and its cash flows for the year then ended in accordance with Public Benefit Entity Standards Reduced Disclosure Regime.

#### What we have audited

The financial statements comprise:

- the statement of financial position as at 30 June 2022;
- the statement of comprehensive revenue and expenses for the year then ended;
- the statement of changes in equity for the year then ended;
- the statement of cash flows for the year then ended; and
- the notes to the financial statements, which include significant accounting policies and other explanatory information.

#### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (New Zealand) (ISAs (NZ)) and International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### Independence

We are independent of the Company in accordance with Professional and Ethical Standard 1 International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand) (PES 1) issued by the New Zealand Auditing and Assurance Standards Board and the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Other than in our capacity as auditor we have no relationship with, or interests in, the Company.

#### **Other information**

The Directors are responsible for the other information. The other information comprises the information included in the Annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of audit opinion or assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.



#### **Responsibilities of the Directors for the financial statements**

The Directors are responsible, on behalf of the Company, for the preparation and fair presentation of the financial statements in accordance with Public Benefit Entity Standards Reduced Disclosure Regime, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Company or to cease operations, or have no realistic alternative but to do so.

#### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements, as a whole, are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (NZ) and ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the External Reporting Board's website at:

https://www.xrb.govt.nz/assurance-standards/auditors-responsibilities/audit-report-8/

This description forms part of our auditor's report.

#### Who we report to

This report is made solely to the Company's Directors, as a body. Our audit work has been undertaken so that we might state those matters which we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's Directors, as a body, for our audit work, for this report or for the opinions we have formed.

The engagement partner on the audit resulting in this independent auditor's report is Karl Deutschle.

For and on behalf of:

Meutlehone (zopen

Chartered Accountants 30 September 2022

Auckland

# **Entity information**

**Te Manahuna Aoraki Limited** For the year ended 30 June 2022

#### **Issued Share Capital** 100 Ordinary Shares

#### **Registered Office**

Nexia Auckland Limited Level 1 5 William Laurie Place Auckland 0632

#### Directors

J A Henry J E MacKenzie D W McLean J C Wright

#### Company Number 6854715

Banker BNZ Bank

#### Solicitor

Chapman Tripp Level 34 15 Customs Street West Auckland

#### Auditor

PricewaterhouseCoopers 15 Customs Street West Private Bag 92162 Auckland 1142

# Date of Formation 14 June 2018

**Shareholder** Hutton Wilson Nominees Limited

100 Ordinary Shares

#### Entity's Purpose or Mission

Te Manahuna Aoraki is a large-scale conservation partnership focused on restoring the iconic natural landscapes and threatened species of the upper Mackenzie Basin and Aoraki/Mt Cook National Park.

#### Main Sources of Cash and Resources

Te Manahuna Aoraki Limited has been made possible by the generosity of philanthropic Trusts and sponsorships.

# Statement of Comprehensive Revenue and Expenses Te Manahuna Aoraki Limited

For the year ended 30 June 2022

	Notes	2022 \$	2021 \$
Revenue			
Revenue from Non-Exchange Transactions:			
Grants Received	7	720,409	1,683,959
In-kind Services Received	7	_	58,652
Donations		25,009	25,000
Revenue from Exchange Transactions:			
Interest Received		3,535	6,744
Foreign Exchange Gain/(Loss)		9,290	(13,770)
Total Revenue		758,243	1,760,585
Expenses			
Accounting	7	15,434	15,121
Audit Fees		10,920	9,923
Board Expenses		22,371	17,370
Communications		85,089	68,099
Consultancy	7	132,869	8,525
Contractors	7	858,162	525,275
DOC services and supplies		534,324	484,877
Employee Costs		690	137,676
Insurance		213	433
Motor Vehicle Expenses	7	12,400	9,222
Other expenses		39,661	23,989
Pest Eradication	7	229,790	63,504
Travel		27,179	13,465
Total Expenses		1,969,102	1,377,479
Net (Deficit)/Surplus before Depreciation		(1,210,859)	383,106
Depreciation			
Depreciation	4	24,631	63,568
Total Depreciation		24,631	63,568
Total Comprehensive Revenue and Expenses for the Year		(1,235,490)	319,538

# Statement of Changes in Equity Te Manahuna Aoraki Limited

For the year ended 30 June 2022

	Notes	2022 \$	2021 \$
Equity			
Opening Balance		1,508,264	1,188,726
Total Comprehensive Revenue and Expenses for the Year		(1,235,490)	319,538
Total Equity		272,774	1,508,264

# Statement of Financial Position

Te Manahuna Aoraki Limited As at 30 June 2022

Notes	2022 \$	2021 \$
2	418,395	962,257
	92,905	4,620
	-	710,491
	163	1,772
	511,463	1,679,140
4	2,813	25,594
	2,813	25,594
	514,276	1,704,734
7	55,678	18,807
	185,824	157,254
	-	20,409
	241,502	196,470
	241,502	196,470
	272,774	1,508,264
	272,774	1,508,264
	272,774	1,508,264
	2	\$ 2 418,395 92,905 - 163 511,463 4 2,813 2,813 514,276 7 55,678 185,824 - 241,502 241,502 241,502 241,502 241,502

For and on behalf of the Board:

K.C. Wills

Director

Date: 30/09/2022 Dr Janice C. Wright

Director

30/09/2022 Date:

# Statement of Cash Flows

Te Manahuna Aoraki Limited

For the year ended 30 June 2022

	Notes	2022 \$	2021 \$
Cash Flows from Operating Activities		•	
Grants Received		700,000	1,849,196
Donations Received		25,009	25,000
Interest Received		5,029	254
Withholding Tax Refund		-	2,681
GST (Payments)/Received		(83,972)	21,397
Payments to suppliers and employees		(1,907,859)	(1,279,416)
Total Cash Flows from Operating Activities		(1,261,793)	619,112
Cash Flows from Investing Activities			
Payments to acquire property, plant and equipment		(1,850)	-
Cash flows from investing in term deposits		710,491	(250,000)
Total Cash Flows from Investing Activities		708,641	(250,000)
Net (Decrease)/Increase in Cash		(553,152)	369,112
Opening cash		962,257	606,915
Effect of exchange rate gain/(loss) on cash		9,290	(13,770)
Cash and Cash Equivalents at end of year	2	418,395	962,257

#### Te Manahuna Aoraki Limited

For the year ended 30 June 2022

#### (a) Statutory Base

The financial statements have been prepared in accordance with Generally Accepted Accounting Practices in New Zealand ("NZ GAAP"). The entity is a public benefit not for profit entity for the purposes of financial reporting and complies with the Public Benefit Entity Standards Reduced Disclosure Regime (PBE Standards RDR) on the basis that it does not have public accountability and is not defined as large (i.e. does not have total expenses over \$30 million).

The financial statements are presented in New Zealand dollars (\$), which is the entity's functional currency. All financial information presented in New Zealand dollars has been rounded to the nearest dollar.

#### (b) Measurement Base

The measurement base adopted is historical cost.

#### (c) Use of Judgements and Estimates

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from those estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

No judgements or estimates were made that have a significant affect on the amounts recognised in the financial statements.

#### (d) Changes in Accounting Policies

There have been no changes in accounting policies. Policies have been applied on a consistent basis with those of the previous reporting period unless otherwise stated. Certain amounts in the comparative information have been reclassified to ensure consistency with the current year's presentation. The impact of this is not material.

#### (e) Revenue Recognition

The specific accounting policies for significant revenue items are explained below:

#### Revenue from non-exchange transactions

Non-exchange transactions are those where the entity receives an inflow of resources but provides no direct consideration in return. They include the following types of transactions:

#### (i) Grants Received

Grants are recognised as revenue when they become receivable unless there is an obligation in substance to return the funds if conditions of the grant are not met. If there is such an obligation, the grants are initially recorded as grants received in advance and recognised as revenue when conditions of the grant are satisfied. Grants revenue is categorised as non-exchange where there is no obligation in substance associated with the funding provided.

#### (ii) In-kind Services Received

In-kind services are recorded at fair value and in accordance with any contractual documentation at the time they are received. These in-kind services are recognised as revenue and expenses in the statement of comprehensive revenue and expense.

#### (iii) Donations

Donations are recognised as revenue when they are received.

#### Revenue from exchange transactions

Exchange transactions are those where the entity receives an inflow of resources and provides approximately equal value to another entity in exchange that is equivalent to the fair value of the consideration received or receivable.

#### (iv) Interest Income

Interest income is recognised on a time-proportion basis using the effective interest method.

#### (f) Expenses

A liability is accrued for expenses incurred in the year estimated at the future cash outflows for the goods and services provided and yet to be billed.

#### Te Manahuna Aoraki Limited

For the year ended 30 June 2022

The entity is registered for GST. All amounts are stated exclusive of goods and services tax (GST) except for accounts payable and accounts receivable which are stated inclusive of GST.

#### (h) Income Tax

The entity is a registered charity under the Charities Act 2005 and accordingly is not subject to income tax.

#### (i) Cash and Cash Equivalents

Cash and cash equivalents includes bank balances, funds held at call with financial institutions, other short-term and highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

#### (j) Receivables

Receivables are stated at their estimated net realisable value. Bad debts are written off in the year in which they are identified.

#### (k) Fixed Assets

Fixed Assest comprise Plant & Equipment and Office Equipment. Fixed Assets are recorded at cost less accumulated depreciation and impairment.

Depreciation of the assets has been calculated using the straight line method at a rate of 33%, which reflects the useful life of the assets.

#### (I) Accounts Payable

These amounts represent liabilities for goods and services provided to the entity prior to the end of the financial year which are unpaid. The amounts are unsecured.

#### (m) Employee Entitlements

Liabilities for salaries and leave entitlements are recognised in surplus or deficit during the period in which the employee provided the related services. Liabilities are measured at the amounts expected to be paid when the liabilities are settled.

#### (n) Income in Advance

Income in advance is made up of grants tied to a particular purpose where there is a requirement to repay funds if they are not fully utilised for that particular purpose. A liability is recognised to the extent that such conditions are unfulfilled at the end of the reporting period.

#### (o) Leases

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the statement of comprehensive revenue and expense on a straight line basis over the period of the lease.

#### (p) Foreign Currency

Foreign currency transactions are translated into New Zealand dollars using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of comprehensive revenue and expense.

#### (q) Financial Instruments

The entity's financial asets comprise cash and cash equivalents and receivables. All of these financial assets are categorised as "loans and receivables" for accounting purposes in accordance with financial reporting standards.

The entity's financial liabilities comprise accounts payable and accrued expenses which are categorised as "financial liabilities measured at amortised cost" for accounting purposes in accordance with financial reporting standards.

### Te Manahuna Aoraki Limited

For the year ended 30 June 2022

2. Cash and Cash Equivalents	2022	2021
	\$	\$
BNZ cheque account	368,065	790,184
BNZ USD call account	50,330	172,073
Total Cash and Cash Equivalents	418,395	962,257

#### 3. Financial Instruments

The carrying value of financial assets and liabilities in each of the financial instrument categories are as follows:

	2022	2021
	\$	\$
Loans and Receivables		
Cash and Cash Equivalents	418,395	962,257
Term Deposits	-	710,491
Receivables from Exchange Transactions	163	1,772
Total Loans and Receivables	418,558	1,674,520
Financial Liabilities Measured at Amortised Cost		
Accounts Payable	55,678	18,807
Accrued Expenses	185,824	157,254
Total Financial Liabilities Measured at Amortised Cost	241,502	
Total Financial Liabilities Measured at Amortised Cost		176,061
	241,502	176,061
	<u>241,502</u> 2022	176,061
ixed Assets	<u>241,502</u> 2022	176,061 2021 \$
ixed Assets Plant & Equipment	241,502 2022 \$	<b>176,061</b> <b>202</b> 1 \$ 190,706
<b>Fixed Assets</b> Plant & Equipment Plant & Equipment at Cost	241,502 2022 \$ 190,706	<b>176,061</b> <b>2021</b> \$ 190,706 (165,112)
Fixed Assets Plant & Equipment Plant & Equipment at Cost Less Accumulated Depreciation	<b>241,502</b> <b>2022</b> \$ 190,706 (189,538)	<b>176,061</b> <b>2021</b> \$ 190,706 (165,112)
Fixed Assets Plant & Equipment Plant & Equipment at Cost Less Accumulated Depreciation Total Plant & Equipment	<b>241,502</b> <b>2022</b> \$ 190,706 (189,538)	<b>176,061</b> <b>2021</b> \$ 190,706 (165,112)
Fixed Assets Plant & Equipment Plant & Equipment at Cost Less Accumulated Depreciation Total Plant & Equipment Office Equipment	241,502 2022 \$ 190,706 (189,538) 1,168	176,061 2021

Total Fixed Assets

Reconciliation of the carrying amount at the beginning and end of the period:

As at 30 June 2022	Plant and Equipment	Office Equipment
Opening net book value	25,594	-
Additions	-	1,850
Disposals	-	-
Dep		

2,813

25,594

Clos

Te Manahuna Aoraki Limited

For the year ended 30 June 2022

#### 5. Contingent Liabilities

At balance date there are no known contingent liabilities (2021: nil).

#### 6. Commitments

There were no future capital commitments at period end (2021: nil).

#### 7. Related Parties

Hutton Wilson Nominees Limited is the sole shareholder of the entity and is also Trustee of Hutton Wilson Charitable Trust. Hutton Wilson Nominees provides the consultancy services of a Programme Manager who is part of the key management personnel of the entity.

Zero Invasive Predators Limited is a related party that has key management personnel in common with the entity and also has Hutton Wilson Nominees Limited as its sole shareholder.

Transactions with related parties were incurred on normal trade terms and conditions.

	2022 چ	2021 \$
During the year the following related party transactions occurred:	Ψ	Ψ
Grants received from Hutton Wilson Charitable Trust	250,000	500,000
In-kind Programme Management consultancy services received from Hutton Wilson Nominees	-	58,652
Programme Management consultancy services paid to Hutton Wilson Nominees	120,000	-
Mileage reimbursed to Hutton Wilson Nominees	12,240	-
Accounting services paid to Hutton Wilson Nominees	14,700	14,445
Pest Eradication costs paid to Zero Invasive Predators	33,619	783
Contractor costs paid to Zero Invasive Predators	55,620	-
The following amounts were owed to related parties at balance date:		
Pest Eradication costs owed to Zero Invasive Predators	34,161	900
Contractor costs owed to Zero Invasive Predators	18,451	-
Key management personnel compensation:		
Remuneration paid to Directors	15,000	16,500

Te Manahuna Aoraki Limited

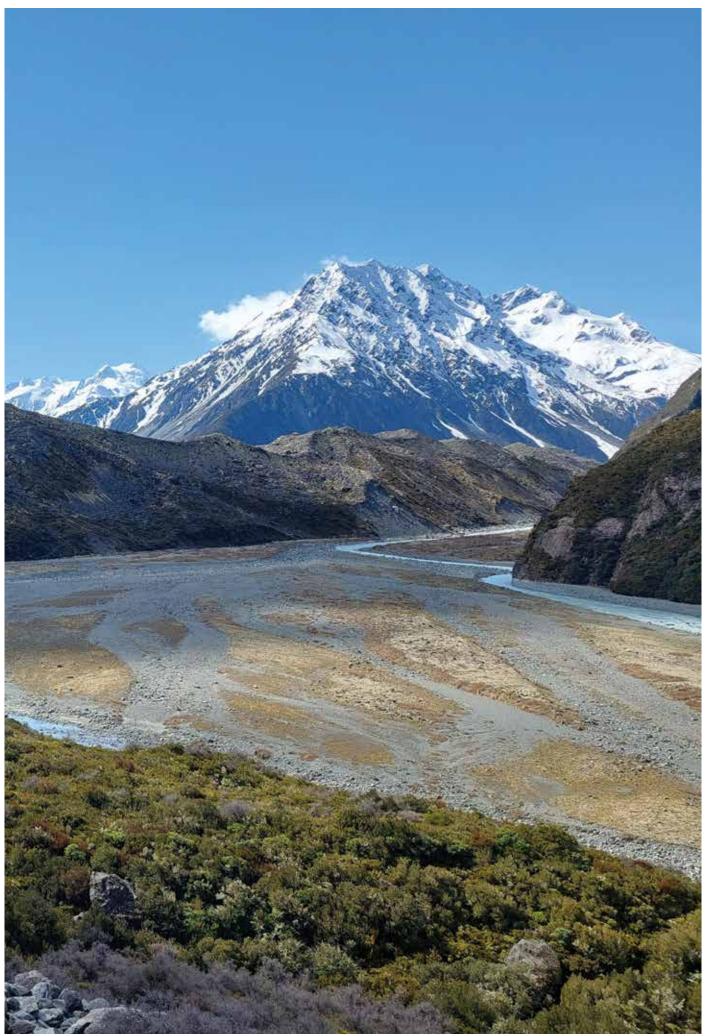
For the year ended 30 June 2022

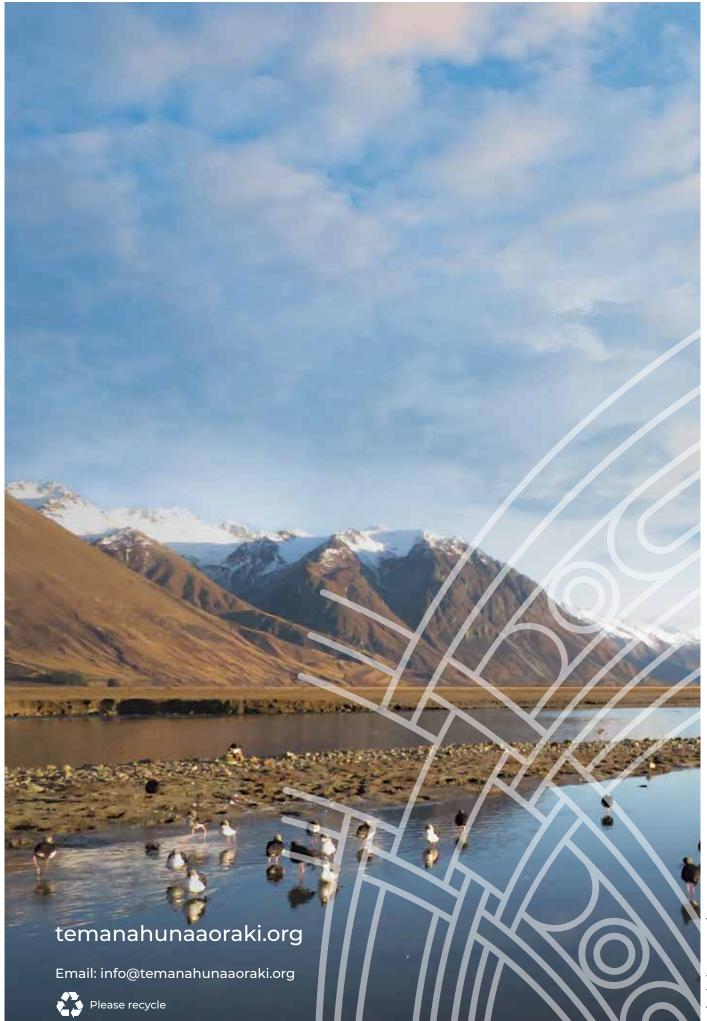
#### 8. Events Subsequent to Balance Date

From 1st July 2022 Zero Invasive Predators, a related party of the entity, has taken over responsibility for all operational activities and associated costs. The entity is continuing to fund the operations and is maintaining governance oversight to ensure the programme of work is delivered as planned. No other subsequent events have occurred after balance date requiring disclosure within the financial statements.

#### 9. Covid-19 Impact

There have been no material negative impacts on the entity as a result of the Covid-19 pandemic, although the work programme over the last two years was interrupted and slightly delayed as a result of Covid-19 restrictions. Despite this the entity will continue as a going concern for the foreseeable future and deliver its programme of work as planned.





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