

# **Biosecurity and Biodiversity Working Party**

**Wednesday 23 February 2022 at 1.00pm**

# **AGENDA**

## Biosecurity and Biodiversity Working Party Agenda

Meeting to be held in the Remotely via Zoom  
on Wednesday 23 February 2022, commencing at 1.00pm

**Please note: working parties and working groups carry NO formal decision-making delegations from council. The purpose of the working party/group is to carry out preparatory work and discussions prior to taking matters to the full council for formal consideration and decision-making. Working party/group meetings are open to the public to attend (unless there are specific grounds under LGOIMA for the public to be excluded).**

### MEMBERSHIP OF THE BIOSECURITY AND BIODIVERSITY WORKING PARTY

Chairperson, NRC Councillor Jack Crow

Councillor Justin Blaikie	Councillor Marty Robinson	Councillor Rick Stolwerk
Ex Officio Penny Smart	TTMAC representative Georgina Connelly	TTMAC representative Julianne Chetham
TTMAC representative Michelle Elboz	TTMAC representative Nora Rameka	

### KARAKIA

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<b>2.0 NGĀ WHAKAPAHĀ/APOLOGIES</b>	
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## Karakia

Ka tū i te waonui a Tāne Ka tupu ake rā Te rākau roa Te rākau nui Te rākau rangatira Ko te Kauri Ko te Tōtara Ko te Manuka Ko te Kahikātea Ko te Pūriri Ka toro atu rā ngā peka kia hono ki tētahi Haramai te toki Haumie hui e TAIKI E!	Stand strong in the realm of Tāne Where the tree develops, endures, grows and where prominence reveals itself Tis the Kauri Tis the Tōtara Tis the Manuka Tis the Kahikātea Tis the Pūriri Reach out far, bind together  Bring forth unity Tis done!
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**TITLE:** **Record of Actions –13 October 2021**

**From:** Mandy Tepania, Biosecurity PA/Team Admin

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 15 February 2022  
**Group Manager/s:**

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### **Whakarāpopototanga / Executive summary**

The purpose of this report is to present the Record of Actions of the last meeting (attached) held on 13 October 2021 for review by the meeting.

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### **Attachments/Ngā tapirihanga**

Attachment 1: Record of Actions 13 October 2021 [↓](#) 



Biosecurity and Biodiversity Working Party  
13 October 2021

## Biosecurity and Biodiversity Working Party Record of Actions

Meeting held in the Remotely  
on Wednesday 13 October 2021, commencing at 1.00pm

### Tuhinga/Present:

Chairperson, NRC Councillor Jack Craw  
Councillor Justin Blaikie  
Councillor Marty Robinson  
Councillor Rick Stolwerk  
Ex Officio Penny Smart

### I Tae Mai/In Attendance:

#### Full Meeting

NRC Poutiaki Taiao - GM Environmental Services, Jonathan Gibbard  
NRC Biosecurity Manager, Don McKenzie  
NRC Biodiversity Manager, Lisa Forrester  
NRC Biosecurity Manager - Marine, Kathryn Lister  
NRC Biosecurity Manager - Incursions & Response, Vivienne Lepper  
NRC Biosecurity Manager – Weeds & Freshwater, Joanna Barr  
NRC Biosecurity Specialist - Predator Free, Ripley Dean  
NRC Biodiversity Specialist – Freshwater, Jacki Byrd  
NRC Policy Specialist, James Griffin  
NRC Biosecurity Officer – Systems Support, Louise Orford  
NRC Biosecurity Officer - Partnerships, Megan Topia  
NRC Biosecurity Officer - Marine, Kaeden Leonard  
NRC PA – Environmental Services, Erica Wade

#### Part Meeting

MPI, Kauri Protection Coordinator, Allen McKenzie  
MPI, Kauri Protection Coordinator, Mita Harris

The meeting commenced at 1.03pm.

### Ngā Mahi Whakapai/Housekeeping (Item 1.0)

### Ngā Whakapahā/Apologies (Item 2.0)

TTMAC representative, Michelle Elboz  
TTMAC representative, Georgina Connolly

Biosecurity and Biodiversity Working Party  
13 October 2021

### **Record of Actions – 16 June 2021 (Item 4.1)**

**Presented by:** Erica Wade, PA Environmental Services

**Agreed action points:**

- No actions required

### **Receipt of Action Sheet - Biosecurity and Biodiversity Working Party Actions (Item 4.2)**

**Presented by:** Erica Wade, PA Environmental Services

**Agreed action points:**

- The recorded action regarding MPI's long term management of Myrtle Rust is to be marked as completed.

### **Kauri dieback - National Plan (Item 4.3)**

**Presented by:** Don McKenzie, Biosecurity Manager

**Agreed action points:**

- Paperwork between NRC and MPI is to be completed in order to receive the \$1m from MPI.

### **Kauri dieback track upgrade project (Item 4.4)**

**Presented by:** Don McKenzie, Biosecurity Manager

**Agreed action points:**

- Kauri Protection to be used in all titles going forward rather than Kauri Die Back.
- Acknowledgement to the Kauri Protection team for the huge effort to progress the project so efficiently and effectively.

### **Biosecurity Operational Report (Item 4.5)**

**Presented by:** Don McKenzie, Biosecurity Manager and Louise Orford, Biosecurity Officer - Systems Support

**Agreed action points:**

- Any recommendations or questions regarding the report are to be emailed to Don McKenzie by 20 October 2021.
- A Draft copy will be issued back to the Working Party after 20 October for final review before presenting to council for adoption.

Biosecurity and Biodiversity Working Party  
13 October 2021

### **Predator Free 2050 (Item 4.6)**

**Presented by:** Dean Ripley, Biosecurity Specialist, Predator Free and Don McKenzie, Biosecurity Manager

**Agreed action points:**

- Update and progress report to be presented at the next Working Party meeting.

### **Deer Eradication Programme Update (Item 4.7)**

**Presented by:** Vivienne Lepper, Biosecurity Officer - Pest Plants and Don McKenzie, Biosecurity Manager

**Agreed action points:**

- Working Party to be kept informed with updates and progress in seeking formal Wild Animal Control Act delegations from the Department of Conservation.
- Norm MacDonald to provide a description (verbal or written) on how deer cull would work at the next Working Party meeting.

### **Clean Hull Plan (Item 4.8)**

**Presented by:** Kathryn Lister, Biosecurity Officer - Marine and Don McKenzie, Biosecurity Manager

**Agreed action points:**

- The Working Party supports the principal of the National Plan and asks staff to workshop the proposal with council ahead of seeking full council formal endorsement.

### **FIF dune lakes project update – including an update on Lake Tukaki (Item 4.9)**

**Presented by:** Lisa Forester, Biodiversity Manager and Jacki Byrd, Biodiversity Specialist - Freshwater

**Agreed action points:**

- Progress report to be presented at the next Working Party meeting.
- Staff to provide a report on costings and feasibility of Hornwort eradication at lake Karaka and adjacent lakes to the next working party meeting.

### **Biodiversity Strategy Update (Item 4.10)**

**Presented by:** James Griffin, Policy Specialist and Lisa Forester, Biodiversity Manager

**Agreed action points:**

- The Working Party supports a formal paper to be presented at the next TTMAC working party meeting seeking guidance on how best to involve tangata whenua in the co-design of the process to develop a regional biodiversity strategy.

Biosecurity and Biodiversity Working Party  
13 October 2021

### **Whakamutunga (Conclusion)**

The meeting concluded at 3.13pm.

DRAFT

**TITLE:**                   **Receipt of Action Sheet**

**From:**                   Mandy Tepania, Biosecurity PA/Team Admin

**Authorised by**           Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 16 February 2022  
**Group Manager/s:**

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### **Whakarāpopototanga / Executive summary**

The purpose of this report is to enable the meeting to receive the current action sheet.

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### **Nga mahi tutohutia / Recommendation**

That the action sheet be received.

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### **Attachments/Ngā tapirihanga**

Attachment 1: Schedule of Actions [!\[\]\(6bb0e4f14c4133b37d2887cb37e67ddd\_img.jpg\) !\[\]\(5677a36a9444aca55c9ef7a9b7d8dd5c\_img.jpg\)](#)

Biosecurity and Biodiversity Working Party – schedule of actions

Meeting date	Item	BABWP action	Responsible staff	Status	Notes
13 October 2021	Receipt of action sheet (Item 4.2)	The recorded action regarding MPI's long term management of Myrtle Rust is to be marked as completed.	PA/Admin support	Completed	
13 October 2021	Kauri dieback - National Plan (Item 4.3)	Paperwork between NRC and MPI is to be completed in order to receive the \$1m from MPI.	Don McKenzie	Completed	Funding agreement has been signed and funding received.
13 October 2021	Kauri dieback track upgrade project (Item 4.4)	Kauri Protection to be used in all titles going forward rather than Kauri Die Back.	Team	Confirmed	
13 October 2021	Biosecurity Operational Report (Item 4.5)	Any recommendations or questions regarding the report are to be emailed to Don McKenzie by 20 October 2021	Working Party	Completed	
		A Draft copy will be issued back to the Working Party after 20 October for final review before presenting to council for adoption	Don McKenzie / Louise Orford	Completed	
13 October 2021	Predator Free 2050 (Item 4.6)	Update and progress report to be presented at the next Working Party meeting.	Ripley Dean	Complete	Scheduled for February meeting
13 October 2021	Deer Eradication Programme Update (Item 4.7)	Working Party to be kept informed with updates and progress in seeking formal Wild Animal Control Act delegations from the Department of Conservation.	Vivienne Lepper / Don McKenzie	Complete	Scheduled for the Feb meeting
		Norm MacDonald to provide a description (verbal or written) on how deer cull would work at the next Working Party meeting.	Vivienne Lepper	TBC	
13 October 2021	Clean Hull Plan (Item 4.8)	The Working Party endorses the principal of the National Plan and asks staff to workshop with council ahead of full endorsement.	Don McKenzie	Ongoing	
13 October 2021	FIF dune lakes project update – including an update on Lake Tukaki (Item 4.9)	Progress report to be presented at the next Working Party meeting	Lisa Forester / Jacki Byrd		
		Staff to provide a report on costings and feasibility of Hornwort eradication at lake Karaka and adjacent lakes to the next working party	Lisa Forester / Jacki Byrd		

**TITLE:** **Kiwi Coast Presentation**

**From:** Kathryn Lister, Biosecurity Partnerships Manager

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 15 February 2022  
**Group Manager/s:**

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### **Whakarāpopototanga / Executive summary**

Kiwi Coast Trust and Northland Regional Council have been working together in a formal working Partnership since 2017 and intend to continue this partnership into the future to ensure biodiversity gains made to date can be sustained and further amplified.

Kiwi Coast Trust is now also working with NRC to support community, hapū and iwi predator free aspirations. Landscape-scale predator suppression and pest-free peninsulas will further boost native wildlife populations across a variety of ecosystems and create new opportunities for threatened species recovery and reintroduction.

Monitoring results show upwards trends of Northland brown kiwi populations and the continued expansion of highly sensitive threatened species such as pāteke or brown teal. To build on these achievements to date there are a range of opportunities for working together on additional outcomes through the next Long Term Planning process.

KiwiCoast will present further information to the working party at the meeting.

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### **Ngā mahi tūtohutia / Recommended actions**

1. That the working party members note the information in the report.
  2. Support the proposal to prepare an item regarding the future of the Kiwi Coast-NRC Partnership to a future council workshop for their awareness and information.
- 

### **Background/Tuhinga**

Kiwi Coast Trust provides a regional platform of support and coordination of grassroots conservation across Northland. 190 entities are currently linked into Kiwi Coast, 184 of which are community, hapū or iwi-led projects. Collectively, these groups and projects manage approximately 225,000 hectares.

The number of entities collaborating in Kiwi Coast has more than quadrupled since the initiative got underway in 2012. The momentum shows no signs of slowing down as more Northlanders get involved in actively caring for their native forests and wildlife and link into Kiwi Coast. Supporting groups to connect pest control networks, find efficiencies and maximise ecological gains remain key actions of the Kiwi Coast Trust.

With iconic kiwi as the collective flag-bearer, projects can work autonomously while part of collaborative landscape-scale pest control networks. Monitoring results demonstrate the strength of Kiwi Coast's collaborative approach. Collated trap catch data shows that 492,458 animal pests have been trapped by groups and projects involved in the Kiwi Coast over the last eight years. On average, over 1,800 animal pests are now trapped every week.

Building capacity and capability across Northland biodiversity projects remains a key focus. Seventy-three skill building workshops have been held by Kiwi Coast since 2012. A total of 18,295 people have attended Kiwi Coast supported events and workshops over the past eight years.


Additional background information can be found in the following reports:

[https://kiwicoast.org.nz/wp-content/uploads/2021/08/Kiwi-Coast-Annual-Report-2021\\_electronic-version\\_July-2021.pdf](https://kiwicoast.org.nz/wp-content/uploads/2021/08/Kiwi-Coast-Annual-Report-2021_electronic-version_July-2021.pdf)

[https://kiwicoast.org.nz/wp-content/uploads/2017/12/Kiwi-Coast-Strategic-Plan\\_LR-Nov-2017.pdf](https://kiwicoast.org.nz/wp-content/uploads/2017/12/Kiwi-Coast-Strategic-Plan_LR-Nov-2017.pdf)

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### Ngā tapirihanga / Attachments

Attachment 1: Kiwi Coast Presentation [↓](#) 





**KIWI  
COAST**



# Kiwi Coast Trust and Strategy Group





## Kiwi Coast Trust – NRC Partnership



Five Year Partnership Agreement signed 2017

KIWI



## Kiwi Coast Trust – NRC Partnership



**Funds two full time Kiwi Coast Coordinators**



## KC Trust resources operations, part-time Far North Coordinator, specialist contractors, monitoring etc



# Other funders, sponsors, supporters







## Kiwi Coast provides a platform of support



- Communities, hapū and iwi lead and drive their own projects
- KC supports and enables projects to link and grow
- Grassroots action-on-the ground



# Bringing people together – fostering collaboration





## hands on workshops, trapper mentoring, project fieldtrips







## Environmental education, skill sharing and capacity building





# Organising events, info and education



**18,295 people attended Kiwi Coast events and workshops over the last 8 years**





## Encourage Kaitiaki / stewardship to protect and manage Northlands native forests and wildlife for future generation



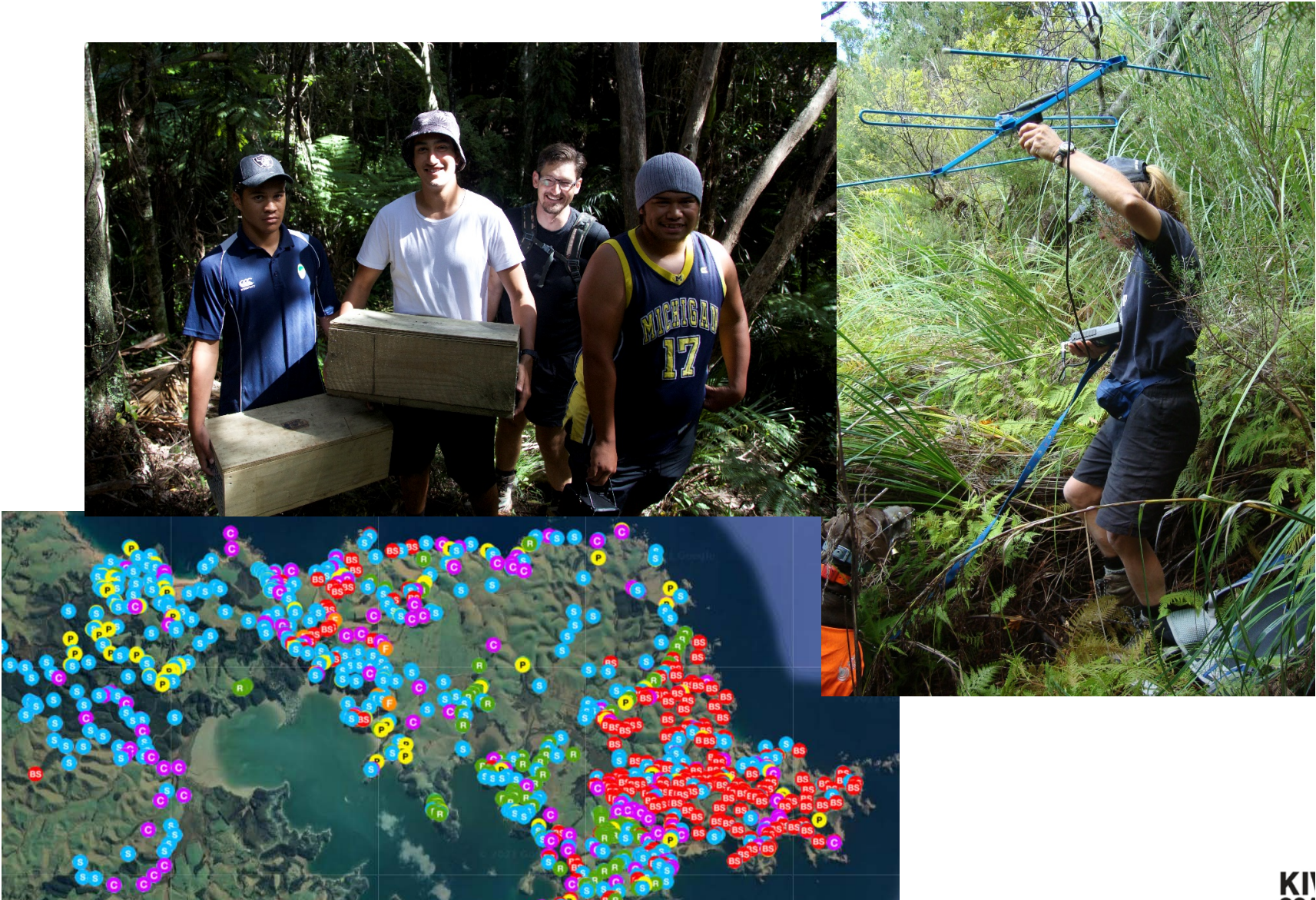


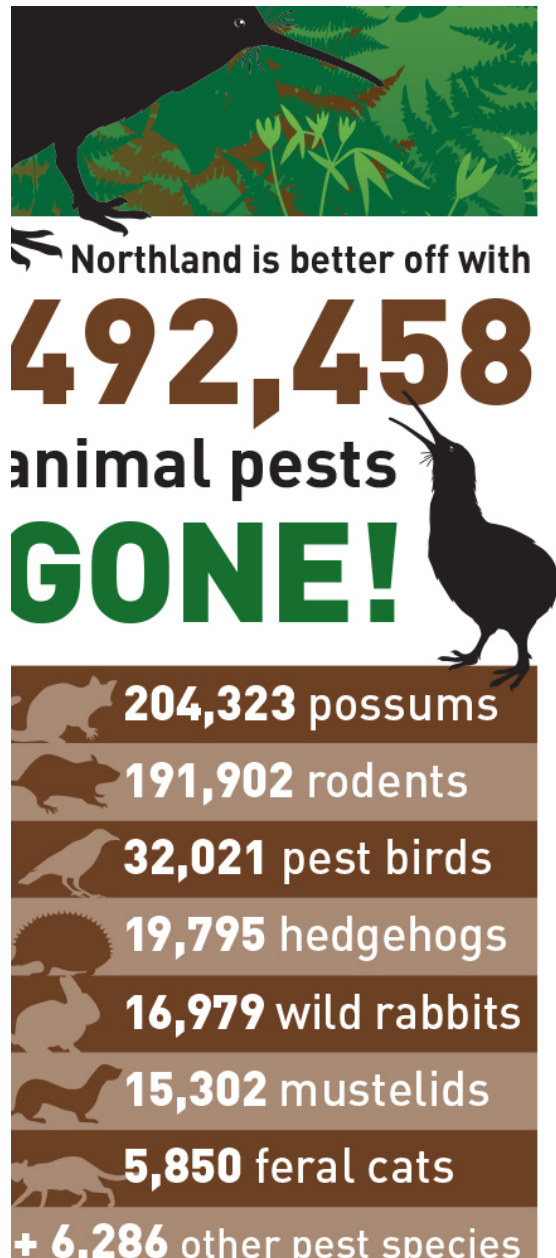
# Helping people, native forests and wildlife to flourish





# Action based, results focussed



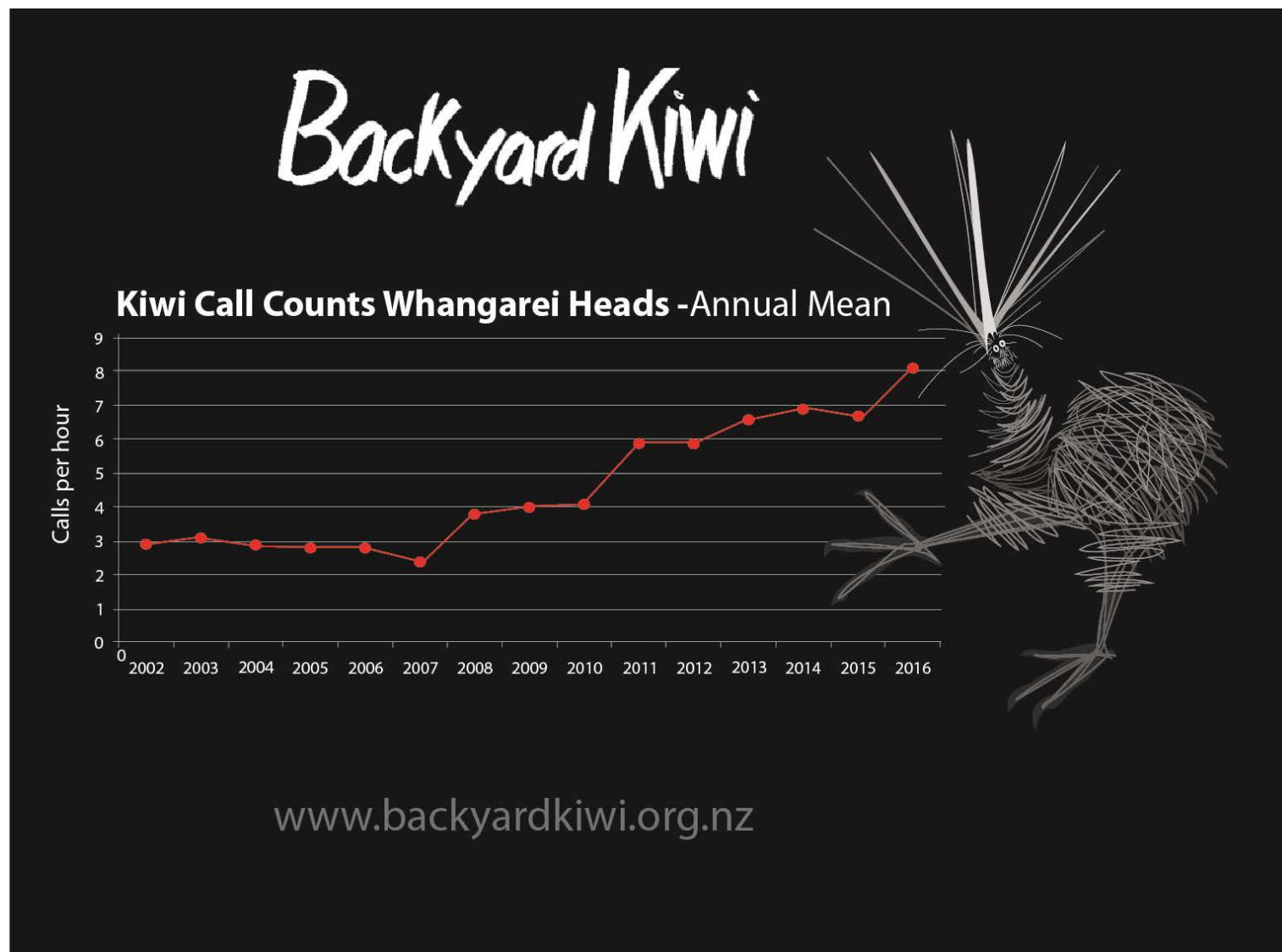


Coordinating pest  
control results to  
show landscape  
scale impact

**KIW  
COAS**



# Monitoring data - yes it's working!



# Connecting kiwi strongholds

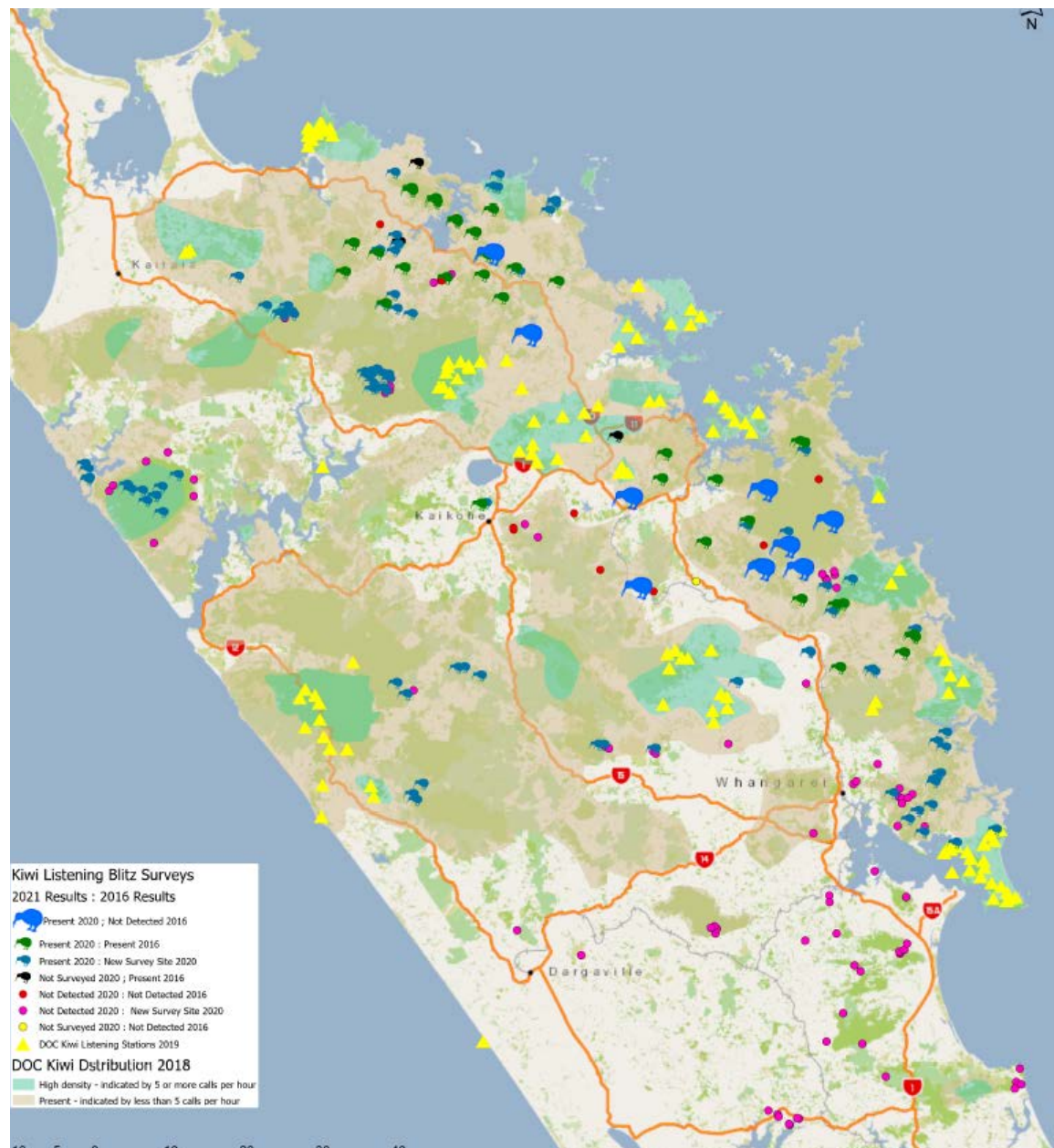


to help kiwi roam safely

The logo for KIW COAS, featuring the word "KIW" in a large, bold, sans-serif font above the word "COAS" in a smaller, bold, sans-serif font. A small, stylized kiwi bird icon is positioned above the "W" in "KIW".

# Kiwi Distribution Monitoring

Five yearly  
Kiwi Listening  
Blitz's





# Flow on effects to other native species

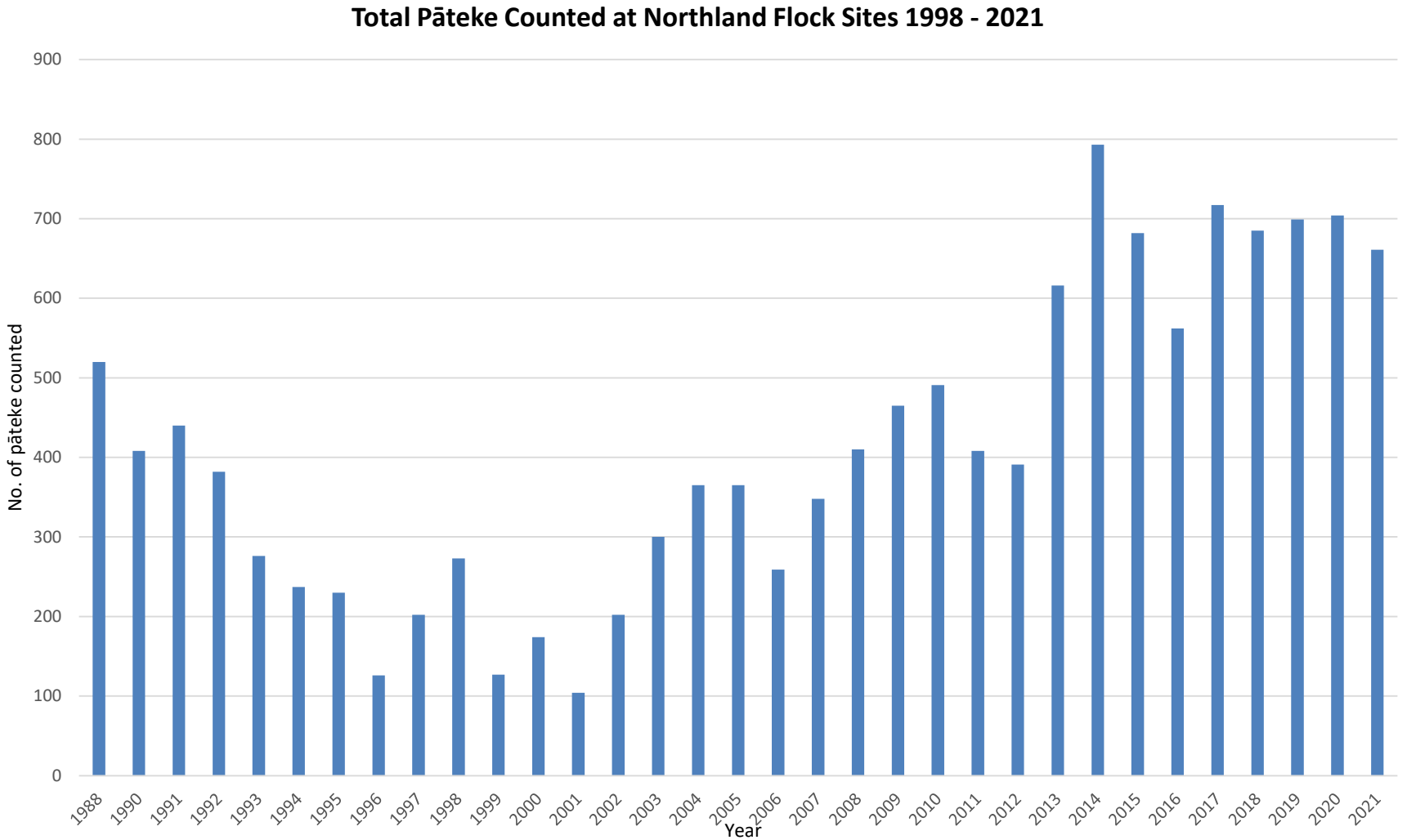




# Indicator Species #1- Pateke



# Pāteke – Northland’s untold success story



## Indicator species #2 and #3 Kaka & Korimako/bellbird

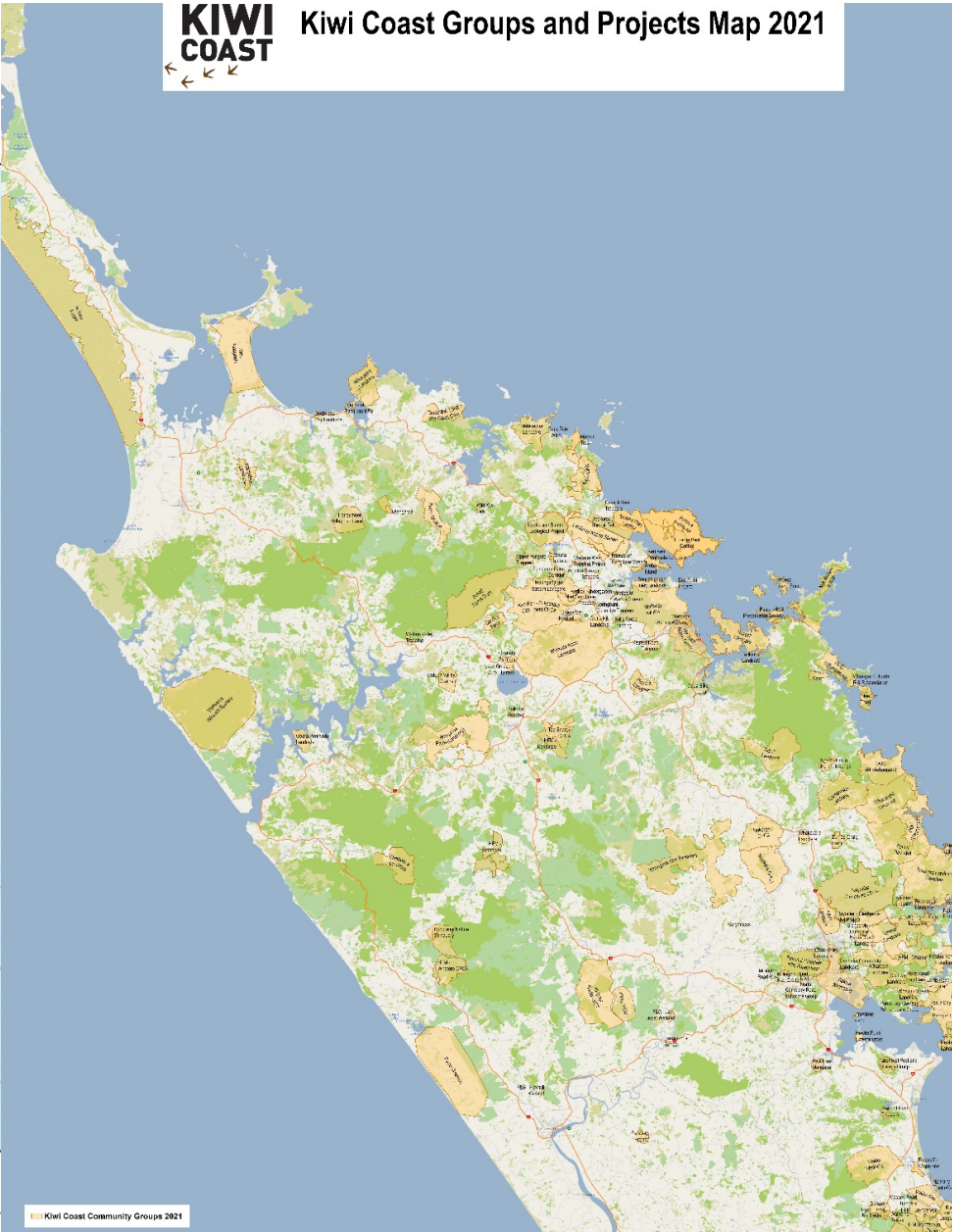




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# Kiwi Link CPCA \$ 2019/2020

Activity/Fund Source	NRC	Kiwi Coast	Unpaid labour (\$20/hour)	Contribution by Landowner/Manager	DOC	HFM	Martin Trust	Tahi	Other sources	Totals
Administration/Project management	7,333	12,667	11,500	8,300	960	1,040	2,500			44,300
Animal Pest Control - labour	42,417		101,800	7,600	1,000	6,000	6,568	19,356		184,741
Plant Pest Control - labour			12,760				2,457	6,229	12,580	34,026
Pest Control Products - baits, traps, herbicides	12,189	33,050	1,159		420		3,294	3,607	3,893	57,612
Planting			15,499				2,340	78,885		96,724
Engagement, Education and Communications	2,459	2,000	3,920					576	5,902	14,857
Monitoring	4,901	3,906	10,970	2,000					2,000	23,777
Workshops and Training	702	1,000	580	100	1,500					3,882
<b>TOTALS</b>	<b>70,000</b>	<b>52,623</b>	<b>158,188</b>	<b>18,000</b>	<b>3,880</b>	<b>7,040</b>	<b>17,159</b>	<b>108,653</b>	<b>24,375</b>	<b>459,911</b>



# All the info...



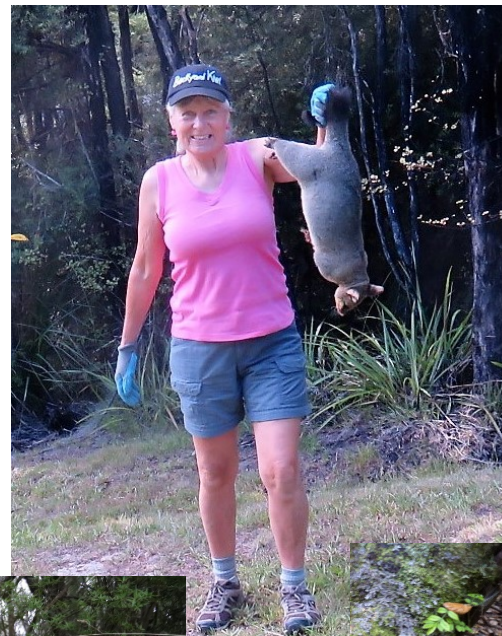
**KIWI  
COAST**



# What's next?

- Keep the partnership going - there's so much more to do!
- Increase the capacity of Kiwi Coast Trust to support and enable more community, hapū and iwi led biodiversity projects across Northland

## Grow and link community-led projects



..into pest control networks across landscapes

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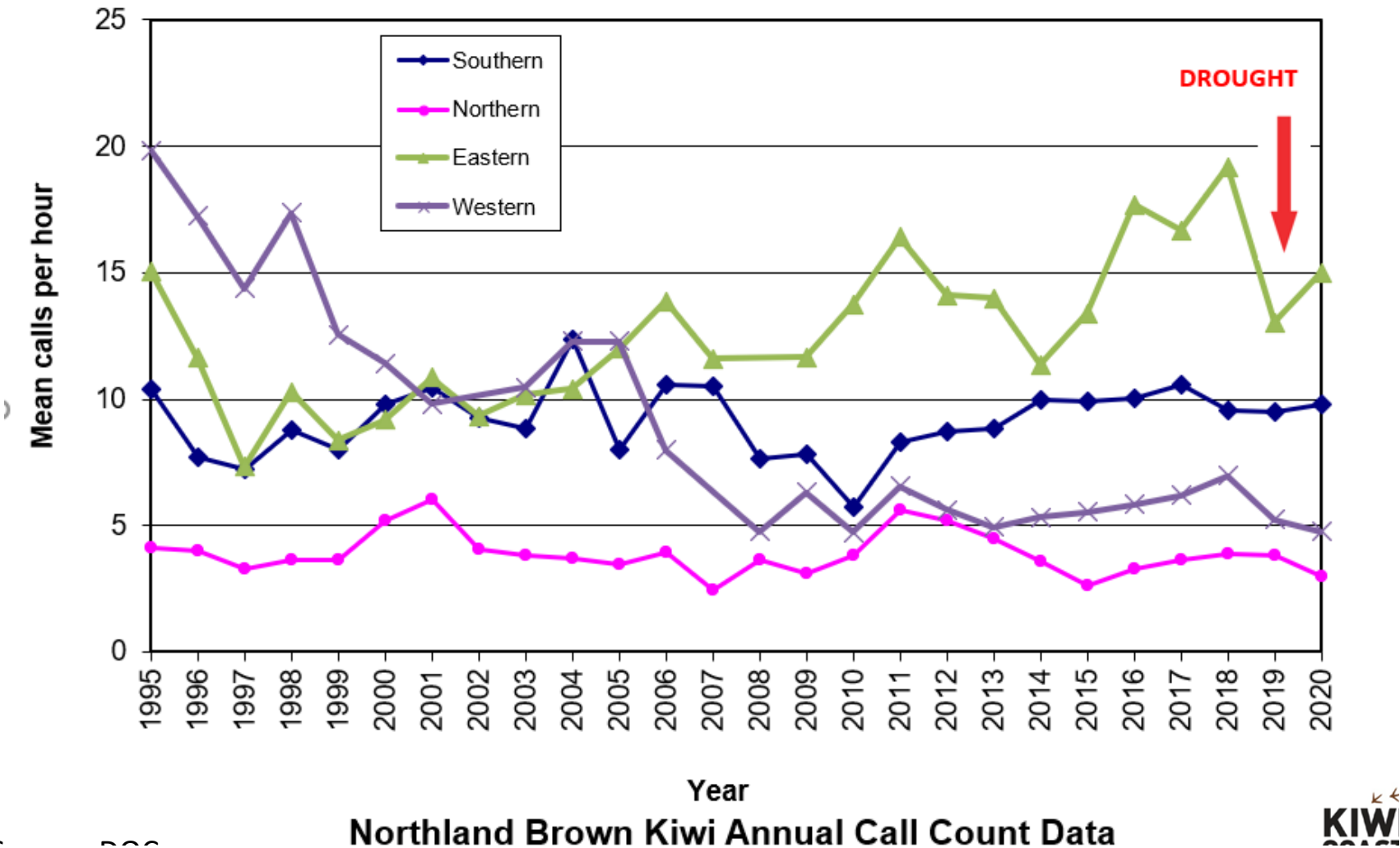


# Explore ecological potential created by predator free peninsulas



?

# Increase robustness and resilience to climate change





## WILDLIFE CONTROLS — RESTORE REGIONAL GENETIC FLOWS





# Keep winning hearts and minds





# Together, we can help Tai Tokerau thrive





# Thank You!

Ngaire Sullivan - Kiwi Coast Coordinator  
Ph 0274 250 249  
[ngaire@kiwicoast.org.nz](mailto:ngaire@kiwicoast.org.nz)

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

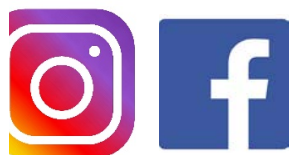


Photo credits:  
Anne Stewart  
Malcolm Pullman

**TITLE:** **Mr Churton - Presentation**

**From:** Mandy Tepania, Biosecurity PA/Team Admin

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on date 15 February  
**Group Manager/s:** 2022

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Mr Tony Churton is a far north resident concerned about uncontrolled dogs on beaches and wishes to express his concerns to the working party and is seeking advice. He will speak to the working party on the day of the meeting.

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**Attachments/Ngā tapirihanga**

Nil



**TITLE:** FIF Dune Lakes Programme - Lake Karaka Update

**From:** Jacki Byrd, Biodiversity Specialist - Freshwater and Lisa Forester, Biodiversity Manager

**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental  
**Group Manager/s:** Services, on 14 February 2022

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### Whakarāpopototanga / Executive summary

Lake Karaka is an isolated dune lake on the west coast of the Poutō Peninsula on private Māori land. Recently an infestation of hornwort, which is a serious aquatic weed was discovered. This lake has informal public access from Riporo Beach and forestry roads and is potentially used by hunters and eel fishers. This infestation represents a risk to nearby high value lakes. This report outlines options to collaborate with mana whenua landowners to eradicate the pest weed in Lake Karaka.

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### Ngā mahi tūtohutia / Recommended actions

1. That this report, “FIF Dune Lakes Programme - Lake Karaka Update”, by Jacki Byrd, Biodiversity Advisor – Freshwater be received.
  2. That the Biodiversity and Biosecurity Working Party support the control of hornwort in Lake Karaka to prevent lake collapse and prevent the spread of the weed to other high and outstanding dune lakes in close proximity.
- 

### Background/Tuhinga

Lake Karaka is a large lake (13.75 ha) ranked as Ecologically Outstanding. Hornwort (*Ceratophyllum demersum*) was found in Lake Karaka (Poutō) by a staff member of the Department of Conservation in July 2021. The lake is on private land owned by the Te Uri O Hau Incorporation. The lake is accessed by 4WD through forestry roads or from the beach 30km south of Glinks Gully. Lake Karaka is approximately 2.2km south of Lake Tutaki which also has hornwort and may have been the source of the infestation. Hornwort can spread by fragments on equipment, and it is most likely that eel fishers or duck hunters introduced it via nets or duck decoys. Wildfowl are not known to spread hornwort or oxygen weed. The Lake Karaka hornwort infestation is a significant risk to other high value lakes on the Poutō Peninsula due the fact that public access across the dunes to its western shore is remote and difficult to control.

Lake Karaka was fenced under the Environment Fund a number of years ago, however the landowners have now removed stock from the catchment.

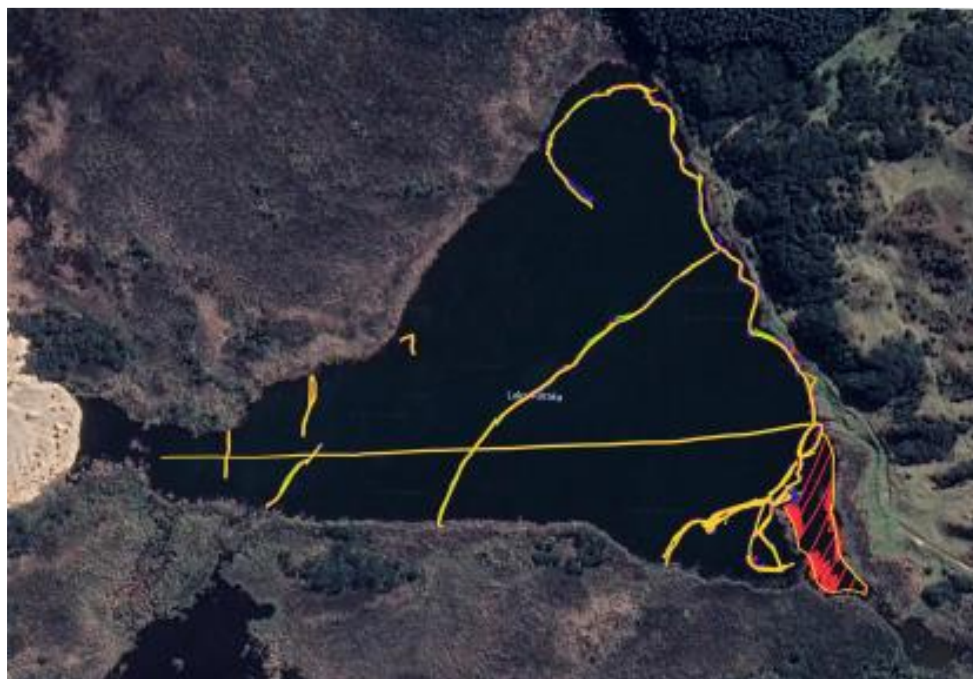
### Consultation with landowners

An initial meeting with Te Uri O Hau Incorporation, the landowners, was held in Dargaville in July 2021. This was followed by a site visit and weed delineation by divers in August 2021. A follow up hui was held on the 15<sup>th</sup> of January 2022 where options for the control of hornwort in Lake Karaka were discussed. Landowners met subsequently and gave permission for weed control to proceed and Northland Regional Council are now collaborating with them to control hornwort in the lake, with advice from NIWA.

### Delimitation survey

In August 2021 Marine Environmental Field Services carried out a delimitation survey to quantify the extent of hornwort. They found an area in the southeast corner of the lake had the highest concentration of hornwort (Figure 1) and fragments and small clusters of hornwort was seen

throughout the lake, at low densities. Hornwort does not root into bottom sediments and can fill an entire lake growing to 12m deep. This is likely if no action is taken and can lead to weed bed rotting causing algal blooms, poor water quality and eventual lake ecological collapse.



**Figure 1:** Map showing Lake Karaka and the areas swum on 4 August 2021 by MEFS divers (yellow lines) and the location of the highest density hornwort observed in the lake (red lines) in the south east corner of the lake.

### Control options

Hornwort control options discussed with the landowners include:

1. Do nothing – hornwort is likely to fill the lake completely if left unchecked. This is likely to lead to a collapse of aquatic vegetation and the flipping of the lake to an algal-dominated state. The weed is more likely to be spread to other nearby high value lakes. This option is not recommended.
2. Introduce grass carp – grass carp could eat all the hornwort, but they also eat all native vegetation, stir up bottom sediments and are very hard to remove when required. Fish live for over 25 years. This option is not recommended.
3. Treatment with Reglone – this herbicide is cheap, but is not effective if water quality is poor, as it is deactivated by algae and sediment. The visual assessment of the lake water quality and the cleanliness of the hornwort on the 15<sup>th</sup> of January 2022 was not favorable for Reglone, therefore this option is not recommended.
4. Treatment with Aquathol – this herbicide is very expensive but effective on parts of the plant in the lakebed sediment so can eradicate the weed with successful treatment. This option is preferred.

At the meeting the three landowner representatives were supportive of the recommendation to apply herbicide to control hornwort. However, they needed to go back to the Te Uri O Hau management committee for final agreement. A meeting was held and the Committee gave land owner approval to Northland Regional Council to apply herbicide to control hornwort in Lake Karaka.

### Aquathol to control hornwort

NRC has approval from the Environmental Protection Authority to use Aquathol in dune lakes, treating a quarter of the lake at a time to avoid deoxygenation. Aquathol is effective against hornwort.



Dense submerged weed infestations usually support good water clarity at least initially, and it is expected that water quality will deteriorate as the weed is killed. Once native charophytes reestablish on the lake floor water quality will improve.

A contract has been awarded to a helicopter company to apply Aquathol to Lakes Tutaki, Egg (Poutō) and Mt Camel (Houhora) which are also infested with hornwort. The ideal time to apply the herbicide is between February and April when the plant is actively growing and water levels in the lakes are lowest.

Divers assess the effect of Aquathol 15-20 days after each application. Up to three quarter lake treatments are being planned at these lakes as part of the Freshwater Improvement Fund (FIF) Dune Lake Project, jointly funded by Northland Regional Council and the Ministry for the Environment.

### Cost estimates

There is currently no budget to control hornwort in Lake Karaka. Cost estimates are shown in the table below. Please note all costs are estimates at this stage based on the work at the other four lakes.

	Aquathol - three treatments
Monitoring	~\$3,000 x 4= \$12,000
Herbicide	~\$105,000
Application	~\$13,000 – \$62,000
Totals	~\$130,000 - \$179,000

### Current funding

The Freshwater Improvement Fund Dune Lakes Project budget for hornwort control is \$230,000. \$215,000 of this has been allocated to three quarter lakes treatments of hornwort in four lakes: Egg, Tutaki, Mt Camel North and South.

However, by changing the programme to two quarter lake treatments of hornwort in these four lakes and adding one quarter lake treatment of Lake Karaka we can maximize the hornwort control in the shortest timeframe. The current 2022 budget can cover this change in programme and we will have a surplus of \$15,000.

Adding Lake Karaka to the 2022 programme will mean extending the control programme over two seasons, 2022 and 2023, and completing the remaining quarter lake treatments in late summer 2023 (final quarter lake treatments of Egg, Tutaki, Mt Camel North and South, and two quarter lake treatments of Lake Karaka).

There is not enough Aquathol in the country to fully treat Lake Karaka and the initial four lakes so this will need to be purchased. The product takes six months to arrive from the United States. The herbicide required to finish off all five lakes in 2023 will cost \$105,000. The cost range estimates for the application of herbicide to Lake Karaka are based on stand alone or combined application with the other lakes.

The \$15,000 balance from 2022 can be used towards the control of hornwort in Lake Karaka, and the other lakes in 2023 meaning a further \$115,000 to \$164,000 would be required to carry out three quarter lake treatments at all five lakes.

It is proposed that staff engage with MfE to seek a variation to the current FIF contract to include Lake Karaka in order to prevent lake collapse from hornwort and prevent the spread of the weed to

other high and outstanding dune lakes in close proximity. Additional funding is able to be sourced from within existing operational budgets to meet the estimated shortfall.

Further information is available in this report:

Marine Environmental Field Services (MEFS) Dive Report Lake Karaka 2021 [20210811 MEFS Dive Report Lake Karaka](#)

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### **Ngā tapirihanga / Attachments**

Nil



**TITLE:** **Predator Free 2050 Update**

**From:** Sam Johnson, Biosecurity Manager - Predator Free

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 16 February 2022  
**Group Manager/s:**

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### Whakarāpopototanga / Executive summary

Predator Free 2050 is an ambitious goal to rid New Zealand of the most damaging introduced predators that threaten our nation's natural taonga.

Recent research reveals the detrimental impact possums have on the carbon stocks of our ngahere. Therefore, although small steps in the ambitious target of achieving a Predator Free Whangārei, possum eradication in the Whangārei heads peninsula has a positive impact of restoring carbon within in our ngahere.

Both projects, Predator Free Whangārei and Pēwhairangi Whānui, build on decades of community efforts of pest control and the project hopes to enhance the work already in progress and support greater intensity of eradication.

Success will see flora and fauna thriving and the ngahere regaining its health and biodiversity value, as well as benefiting our wider economy and primary sectors.

### Predator Free Whangārei

**Primary Focus:** Possum eradication in Whangārei heads rohe.

**Secondary Focus:** Mustelid and rat suppression

The eradication will be achieved by engaging and supporting community, conservation groups, and landowners, and implementing methodologies that are at the forefront of pest control technologies. Most importantly, we recognise there is further work to be done to engage with local hapū as the mana whenua and hau kainga of te taiao.



### The Team

We recently welcomed five new staff and the team now comprises four field staff, two specialist roles (communications, design, and delivery) and the Predator Free Manager role across both PF 2050 projects. The field team have been active over the last few months setting up eradication devices and trail cameras and there has been progress made with engaging with hapū and community groups - this mahi is now a priority.

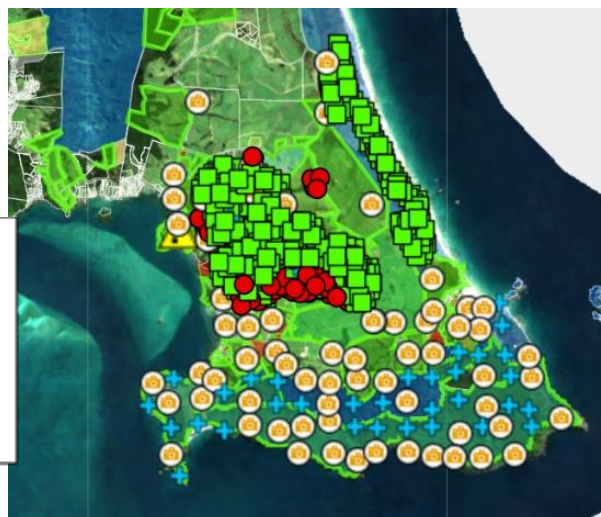
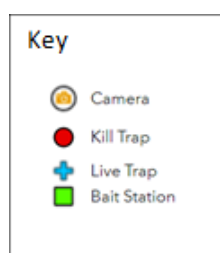
### Community Engagement:

COVID-19 has impacted the ability to hold hui and meet with the community.  
Engagement over last 12 months:

Community groups	Landowner engagements	Workshops & events	Community newsletters	Public email inquiries
5+	197 (194 accepted)	8	9	12+ in the last 12 months

### Operations

Field staff are setting up the devices in Bream Head/Te Whara and Taurikura working blocks. In the coming weeks the team will be ready to begin the possum removal process.



Area coverage	Eradication devices	Live capture traps	Trail cameras	Images classified
1809+ ha (much greater coverage with landowner engagements)	1809	72	72	20,000+

### Technology & Science:

New technologies for pest eradication provide the opportunity to use exciting new tools and methodologies to eradicate possums from the rohe.

Tools	What is it?	Why do we need it?
<b>Trail cameras + an automatic lure dispenser (ALD) + a classification app</b>	A motion detection camera captures images of moving objects in five second intervals. Partnered with each camera is an ALD that drips mayonnaise once every 24 hours. Each month the footage is collected and a classification app is used to catalogue the images.	This allows us to understand the presence and absence of possums and other species.  In the Taurikura working block, 60% of the cameras had possums present and 70% recorded kiwi.
<b>Leghold live capture traps + signal hubs</b>	An MPI approved auto-reporting technology that alerts staff when a possum has been caught in the leghold. Within 12 hours of sunrise a staff member must check the trap and remove the possum.	This technology will help catch possums that are wary of taking toxin or being caught by traditional traps. The auto-reporting technology also means we won't have to check each traps daily.
<b>DNA sampling using possum ears</b>	Ears from dead possums are collected within the project area to obtain DNA samples.	In the future, this will help determine if a possum detected from an eradicated zone is an invader or is resident.

### **Project risks**

Our experienced team has identified risks associated with this project and have mitigation processes to minimise these risks – the mitigation plans are still to be finalised, and traps will not be ‘livened up’ before completion. Please see attachment 1 for details on operational risk and mitigation strategies

### **Predator Free Pēwhairangi Whānui (Bay of Islands)**

#### **Primary focus:**

This project received funding last year and is still in its infancy. We are working with the three peninsulas of Kororāreka (Russell,) Rakaumangamanga (Cape Brett,) and Purerua to find a methodology that suits each landscape and community. Multiple phone calls, emails, kanohi ki te kanohi meetings and online meetings have been held, with individuals and groups.

There is strong desire from all three peninsular groups to work with the PF2050 programme, as a way to achieve wider support for their pest free aspirations.

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### **Ngā mahi tūtohutia / Recommended actions**

#### **Predator Free Whangārei**

1. Further engagement with local hapū – meet with hapū representatives with the aim of providing information and korero about how PF2050 resources can support their whenua aspirations. Implementation will likely be on a staggered basis working with those who are ready. Opportunity for training of kaimahi to assist other project groups
2. Develop a cohesive plan for risk mitigation and response before possum killing begins for consideration by council
3. Complete the installation phase before beginning to remove possums (weekend roster, landowner agreements, install hubs and traps)
4. Develop a Predator Free Whangārei website

#### **Predator Free Pēwhairangi Whānui (Bay of Islands)**

1. Organise and conduct hui, and wānanga workshops as required by each hapū to better understand the needs of each peninsula
1. Bring peninsular groups together (existing & future community group and hapū) to discuss basis of a Mana Enhancing Agreement and how a common purpose can lead to wider support and collaboration.
2. Develop a Mana Enhancing Agreement that encompasses the aspirations and activities of all three peninsular, while also enabling continued delivery of individual programmes to meet the needs of each rohe.

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### **Ngā tapirihanga / Attachments**

Attachment 1: Operational Risk Mitigation  



## Operational risks

### Risks to non-target species including people

The use of toxin and traps represents potential risk to non-targets including people. These risks must be managed to either remove or minimise the risk to a low level. The table below outlines the considerations and actions taken to mitigate risk.

#### To people:

Toxin Risk	Mitigation
Direct consumption	Toxins are dyed blue or green to discourage consumption
	Acute toxins, such as cyanide or 1080, will be placed in bait stations or bait bags
Secondary/indirect poisoning	No consumption of wild game that could have been exposed to and consumed toxin during the operation until toxin warning signage has been removed
Trap risk	Kill traps placed beyond reach of young children

#### To pets/companion animals:

Toxin Risk	Mitigation
Direct consumption	Toxins will be contained within bait stations
	Toxins are dyed blue or green to discourage consumption
	Owners will be encouraged to keep dogs controlled – on leads or tied up
	Muzzles will be provided for dogs that could encounter toxins
	Regular servicing of bait stations will be undertaken to ensure minimal spillage
	Toxins will only be present in one area for a maximum of six months
Secondary/indirect poisoning	Owners will be encouraged to keep dogs controlled – on leads or tied up
	Muzzles will be provided for dogs that could encounter carcasses
	Owners will be encouraged to keep cats in a night during their main foraging time
Trap risk	Kill and live capture traps raised and/or tree mounted.

#### To native birds and bats:

Toxin Risk	Mitigation
Direct consumption	Toxins will be contained within bait stations
	Toxins are dyed blue or green to discourage consumption
	Regular servicing of bait stations will be undertaken to ensure minimal spillage
	Toxins will only be present in one area for a maximum of six months
Secondary/indirect poisoning	Most species do not scavenge for carcasses and would need to consume large quantities or carcasses to ingest a lethal dose – except for 1080
Trap risk	Kill and live capture traps raised and/or tree mounted
	Treadle of leghold trap is black to avoid ruru attraction

#### To livestock:

Toxin Risk	Mitigation
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Direct consumption	Toxins will be contained within bait stations
	Bait stations will be kept out of reach of livestock
	The type of bait stations used will produce minimal spillage if disturbed by livestock
	Regular servicing of bait stations will be undertaken to ensure minimal spillage
	Toxins will only be present in one area for a maximum of six months
Secondary/indirect poisoning	No use of 1080 adjacent to livestock
Trap risk	Kill and live capture traps raised and/or tree mounted
	No open style traps used in livestock accessible areas

**To drinking water supply:**

Toxin Risk	Mitigation
Direct contamination	Toxins will be contained within bait stations – no aerial application
	Regular servicing of bait stations will be undertaken to ensure minimal spillage
	Toxins will only be present in one area for a maximum of six months
	A toxin exclusion zone will apply around drinking water sources
Secondary/indirect contamination via carcasses	Regular visual checks of any uncovered water sources will be made

**Unwanted interference from non-target species**

In some instances, and usually only when paste matrix toxins are used, introduced finches such as sparrows can remove large quantities of toxin from bait stations and potentially jeopardise the amount available to possums.

Toxin removal risk	Mitigation
Exotic finches, sparrows	Toxins will be contained within bait stations – no aerial application
	In open areas, use of Philproof bait station to limit visual attraction
	Regular servicing of bait stations will be undertaken to ensure minimal spillage
	No use of paste type toxin matrix
	Toxin only present for limited time so birds may not learn this behaviour

**TITLE:** Kauri Protection Update

**From:** Gavin Clapperton, Kauri Boardwalks Project Lead

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 15 February 2022  
**Group Manager/s:**

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### Whakarāpopototanga / Executive summary

This report updates on the progress with Kauri protection delivered by biosecurity staff and provides a detailed update on the PGF funded Kauri Dieback Track Mitigation (KDTM) Project (Kauri Boardwalks), to inform councillors of progress. The physical works of the \$2M upgrade began in January 2021 and steady progress has been made throughout the year with more than 8.6km or 61% of the targeted 13.89km completed as of the end of December. To date, three sections of track have been completed, including Kauri Mountain, Kerikeri river and Wrights Farm with a fourth at Puketotara farm also near Kerikeri expected to be completed in late February. Fourteen FTEs are currently employed as part of the labour force and there are four remaining upgrades to be completed before the end of June this year.

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### Ngā mahi tūtohutia / Recommended actions

1. Note the information contained in the report
2. Staff to provide a further update on progress at the next working party meeting.

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### Background/Tuhinga

#### Kauri Protection in Northland

Soil sampling of kauri to detect the causal agent *Phytophthora agathidicida* has been underway since November across the region with nine sites, seven of them new. Over 130 samples have been taken since mid-November, and the approach has been to determine disease presence or absence by increasing the number of samples acquired. Fifty-three samples have been returned by the laboratory thus far and all have tested negative for the disease which has been encouraging.

The Kauri Protection team have also trained kaitiaki from the Te Rūnanga-Ā-Iwi O Ngāpuhi Kaitiaki Kauri Team and the Ngāti Rēhia Kauri Sanctuary and are expecting to train kaimahi from Patuharakeke in the coming weeks. The training focused on how to correctly take soil samples to detect *P. agathidicida* encouraging local kaitiaki to take their own samples with the costs of laboratory analysis supported by the kauri protection budget.

Staff have also provided advice and assistance to a roopu funded group to undertake Rongoā treatment of infected kauri located in Pāwarenga.

In addition, and during 2021 the team presented a total of 15 workshops and 25 school education visits reaching 100 people in the workshops and over 1000 students in school visits.

#### Kauri Boardwalks

Key outcomes of the kauri boardwalk project are as follows:

- To provide jobs to those unemployed, as a result of the impact of COVID 19 in New Zealand.
- Be a key part of jobs created being sustainable, providing not just short-term benefits to the unemployed.
- Protecting kauri from the soil borne pathogen which causes dieback through the upgrade of walking tracks to protect root systems and prevent movement of dirt via footwear.



- To upgrade walk trails, enhancing the experience of the walk using boardwalks, boxed steps and occasionally platforms and bridges.
- Encourage the use of the tracks which would attract tourists increasing the patronage of local cafes, restaurants, and accommodation.

### Progress Summary

Of the original eight jobs or track sections five have been scheduled successfully- scheduling means that all the upgrades required have been costed and materials needed have been calculated by the engineer. The chosen contractor has a track record of employing and sustaining employment for unemployed Māori in Northland and has been working on the project since January 2021 and 14 FTEs are employed.

Three of the trail upgrades have been completed being Kauri Mountain, Kerikeri Upper River and Wrights Farm near Kerikeri and another one is very close to completion at Puketotara Farm which is also near Kerikeri. The project has experienced some challenges including those relating to landowner approvals. As a result, four of the projects had to be replaced with alternative trails two of which are on the Te Araroa trail and the remaining two are public trails on private and council land. All the trails protect kauri in some way and the alternative projects at Paparoa Bush Walk and Kaiwaka Domain are especially significant due to the number and age of the Kauri present in the respective reserves.

The contract was originally due for completion in February of this year however an extension has been granted by MBIE until the end of June in acknowledgement of the delays that covid has caused to works in recent months and the issues concerning some landowner's reluctance to proceed with upgrades across their land. Approval has also been granted for an additional contractor to be brought in which is expected to accelerate the remaining works during the last few months of the agreement.

Publicity surrounding the achievements of the fund is also being planned with Te Araroa trail regional representatives for when the three Waipapa/Kerikeri tracks are completed.

### Kauri National Plan

Advice received from MPI has indicated that the Minister will adopt the new Kauri Protection National Plan in May of this year. [National \(Phytophthora agathidicida\) Pest Management Plan proposal](#)

Funding from MPI in the current year to kick start aspects of the plan have included new money for fencing, soil sampling, education, and pest animal control. Staff are working closely with the MPI team to ensure projects are co-ordinated between the collective agencies', councils, community interests and iwi māori.

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### Ngā tapirihanga / Attachments

Nil

**TITLE:** Feral Deer

**From:** Vivienne Lepper, Biosecurity Manager - Pest Animals and Incursions

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 15 February 2022  
**Group Manager/s:**

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### Whakarāpopototanga / Executive summary

The sika eradication in Russell Forest is underway, and this report provides an update on the project and current Northland deer incursions.

A trial of the methods to be used across Russell Forest to detect sika has been completed which confirmed the success of the survey technique and provided data which showed that the wider area could be covered in a matter of weeks. The team also built positive relationships with adjacent landowners and Department of Conservation staff who are assisting with the project. Hunters were generally able to distinguish faeces of deer from that of goats however misidentification did occasionally occur and culling of goats will be required as a prerequisite to the eradication. This work will begin in late February and will cost \$60k.

Seventy percent of faeces collected were sika and this will be refined through improved sampling methods and reduced goat numbers. This method will provide a full population map of sika, including the spatial extent of their distribution, number, and location of individuals. This data will provide accurate information to create a comprehensive eradication plan, more accurate costings and understanding of the feasibility of eradication. The full cost of the complete sika survey is estimated at \$140k and will be followed by the sika eradication which is likely to take two years and cost more than \$500k in the first year.

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### Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information contained in the report.
2. Staff to update on further progress at a future working party meeting.

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### Background/Tuhinga

#### Sika eradication

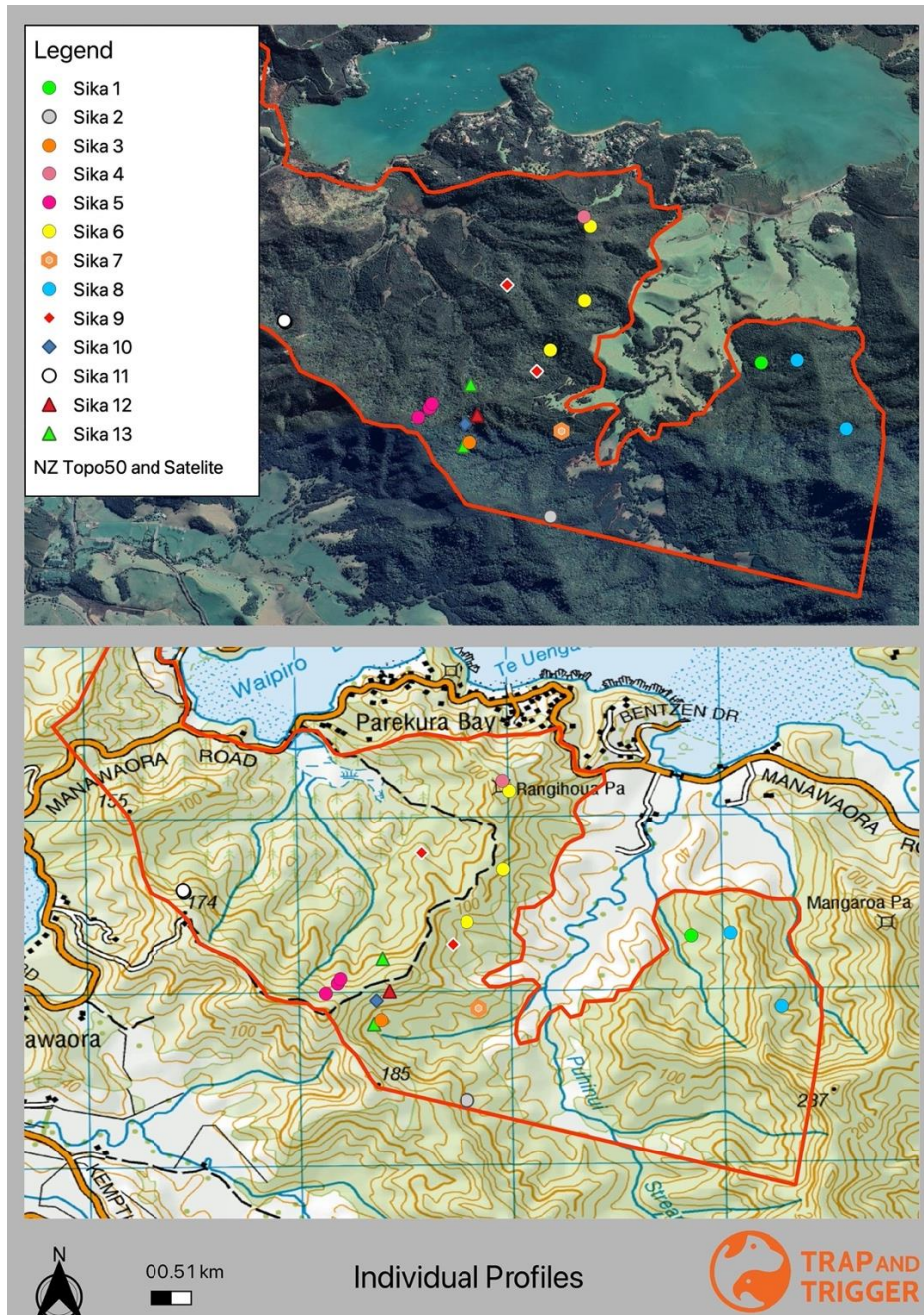
In May 2021 Trap and Trigger were contracted to trial across a portion of Russell Forest to test methods and costings. The aim of the trial was to establish if DNA sampling could successfully be used in Russell to identify and describe the home ranges of any sika. Deer faeces were collected over a small portion of the forest and their subsequent laboratory analysis enabled staff to determine how many deer were present, their home range, and the gender of each individual. The proof of concept also provided an opportunity to model the costs and effort required to conduct operations across the wider area.

A complicating factor for the sika eradication is the presence of a high numbers of feral goats. Goat faeces can be confused with those of sika and subsequent analysis of goat faeces inadvertently collected as part of the sika survey will add significant costs and time to the operation. To avoid this risk the next step in the project is to reduce feral goat populations to low numbers prior to undertaking the sika survey and eradication.

#### Results of the trial:

- 42 Samples were collected – 29 tested positive as sika

- Of the 29 sika samples, 21 samples were complete enough for individual DNA profiling
- Of the 21 complete samples, 13 sika were identified, 7 were female, and 6 were male
- Four samples collected were feral goats and culling of goats will reduce the likelihood of non-target sampling.
- Spatial analysis of sampling took the hypothetical individuals from 11 to 13

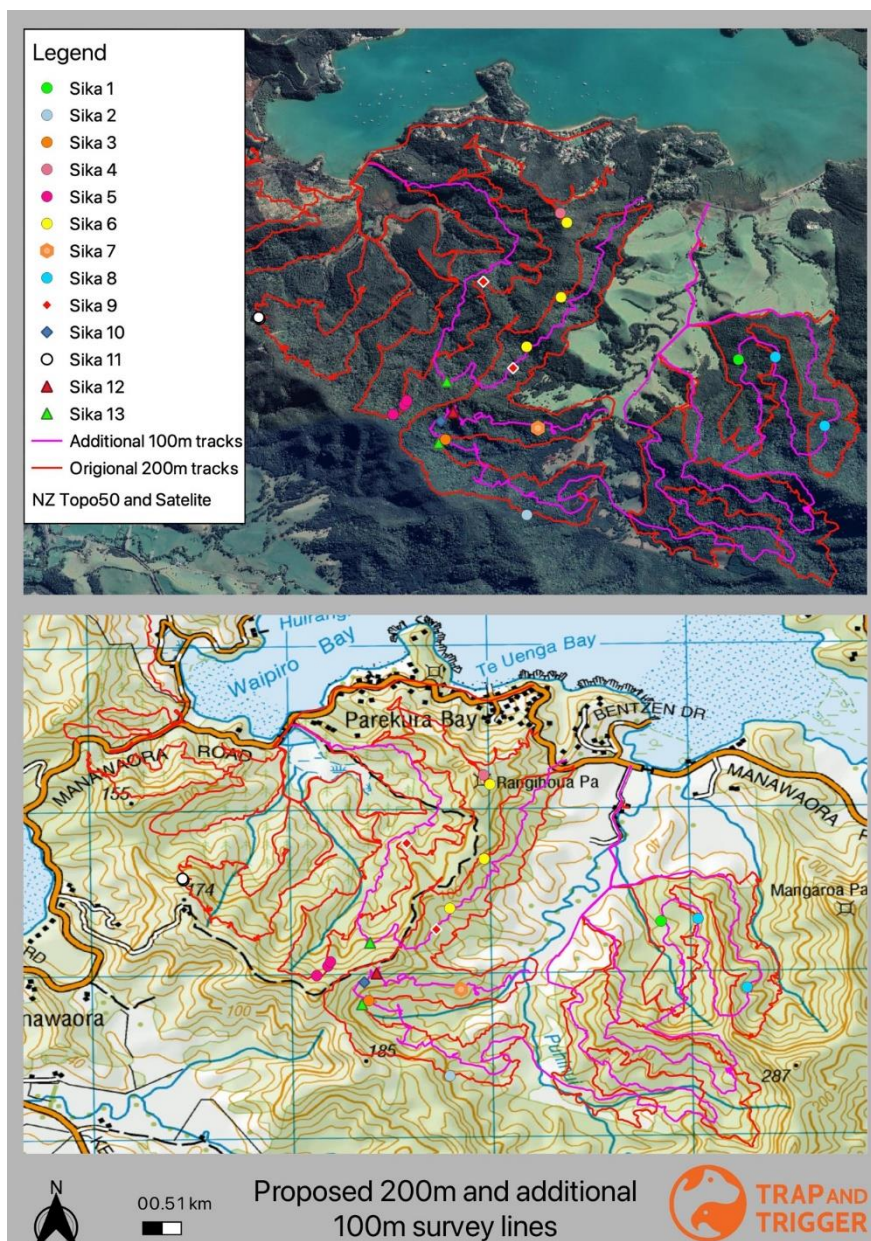


#### Survey effort and costs:

- Additional survey lines discovered another five sika and findings from the trial indicated that survey lines need to be less than 150m apart and reduced to 100m to increase the confidence of finding faeces and defining the projected home ranges.
- The survey took six days to complete the original 200m survey lines and nine days overall.



- Further work is being undertaken to refine the field sampling and laboratory analysis of sampling for sika deer. This will result in a higher strike rate of complete vs partial DNA recovery.
- The survey cost approximately \$8k and covered 540 hectares - these costs would be reduced given an increase in scale. At this rate it is projected to cost up to \$140k to survey the entire area where sika are located and six months to complete the analysis of samples.
- The sika eradication will follow and take up to two years. The final costs for this are still to be confirmed and likely to be more than \$500k in the first 12 months of operations.



## Ngā tapirihanga / Attachments

Nil

**TITLE: Biosecurity Climate Change Strategy**

**From:** Kathryn Lister, Biosecurity Partnerships Manager; Sam Johnson, Biosecurity Manager - Predator Free; Joanna Barr, Biosecurity Manager Pest Plants; Vivienne Lepper, Biosecurity Manager - Pest Animals and Incursions; Lisa Forester, Biodiversity Manager and Kaeden Leonard, Biosecurity Specialist - Marine Pests

**Authorised by Group Manager/s:** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on

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**Whakarāpopototanga / Executive summary**

Council has developed a Climate Change Strategy which outlines our proposed response to the climate crisis in terms of three pou: adaptation, reducing emissions and removing carbon. One of the actions council has committed to, which aligns with the pou of adaptation, is to investigate and plan for increased biosecurity threats under future climate change scenarios. This brief paper describes the initial planning towards a Biosecurity Climate Change Strategy as a basis for discussion.

The impacts of climate change for native biodiversity are expected to be widespread for a range of reasons, one of which will be emergent pest species. For example, slider turtle incursions throughout Northland's waterways have been widespread in recent years either through deliberate release (as outgrown pets), or accidentally (escaping their ponds during flood events). Sex determination among slider turtles is temperature dependant, meaning that if environmental temperatures in Northland range between 20 °C –27 °C (in the ground) the resulting offspring will be male, whereas temperatures above 28 °C will produce males and females and above 31°C females. Current climate conditions are favourable to male-only egg development. However, with increased temperatures, the limiting environmental temperature conditions once favouring males only, is likely to shift in favour of both sexes. If that occurs, the likelihood of slider turtles currently at liberty in Northland's waterways establishing self-recruiting populations will increase markedly signalling a turning point at which our efforts to control their spread will become a lot more difficult. An emergent risk like this could be managed by consulting on different rules on the ability for such species to be allowed or banned from sale and distribution. Science-based pest management is an important way to support the resilience of our natural environments to reduce the consequences of these impacts.

The planned Biosecurity Climate Change Strategy will clearly set out the practical steps we aim to take to ensure our biosecurity programmes are fit-for-purpose in the face of a changing climate. At a high level, these include:

- Commissioning a preliminary review of high-risk 'sleeper' pests and offshore biosecurity threats under future climate change scenarios.
- Ensuring new biosecurity threats that may emerge as a result of predicted climate conditions are included in the next review of the Regional Pest Management Plan (~2027);
- Participating in and building strong partnerships with Māori and communities to empower all people of Northland to contribute to locally meaningful pest management and biodiversity protection.

We anticipate that the preliminary review would investigate threats to human health, primary industries and environmental health from non-indigenous species and identify knowledge gaps and areas requiring further research. The review would align with and compliment a nationwide project on sleeper pests being led by the regional sector to provide the necessary nuanced region-specific information required for sound local management.

Because funding will need to be externally sourced, we will continue to work with our colleagues across the primary research sector to look for funding opportunities.

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**Ngā mahi tūtohutia / Recommended actions**

1. Note the information contained in the report.

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**Background/Tuhinga**

Not applicable

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**Ngā tapirihanga / Attachments**

Nil



**TITLE: Biodiversity strategy update**

**From:** Lisa Forester, Biodiversity Manager and James Griffin, Policy Specialist

**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental  
**Group Manager/s:** Services, on 14 February 2022

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**Whakarāpopototanga / Executive summary**

The purpose of this report is to:

- Provide an update on the release of the National Policy Statement for Indigenous Biodiversity.
- Provide recommendations to delay the development of a Regional Biodiversity Strategy; and
- Recommend the development of a Council Biodiversity Strategy.

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**Ngā mahi tūtohutia / Recommended actions**

1. Seek endorsement to delay work on a Regional Biodiversity Strategy until the release of the National Policy Statement Indigenous Biodiversity (NPS-IB).
2. Seek endorsement to develop a Council Biodiversity Strategy which will guide Council biodiversity work programmes

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**Background/Tuhinga**

**Whakarāpopototanga / Executive summary**

Central government plans to release a National Policy Statement for Indigenous Biodiversity (NPS-IB). Within six years of commencement, the NPS will require regional councils to prepare a regional biodiversity strategy in collaboration with territorial authorities, tangata whenua, communities, and others, such as the Department of Conservation. The purpose of a regional biodiversity strategy is to promote a landscape-scale restoration and enhancement vision for the region's indigenous biodiversity including all land, freshwater, and the coastal marine area. Council currently has no overarching strategy that clearly shows what the regions biodiversity goals are, methods for achieving the goals, and measures that ensure success.

The Te Mana o Te Taiao/Aotearoa NZ Biodiversity Strategy is a national document which guides local and central government around managing biodiversity. It sets a strategic direction for the protection, restoration, and sustainable use of biodiversity. Upholding Treaty principals are an essential part of Te Mana o Te Taiao and partnering with iwi and hapū to create a shared vision for the future of Te Taitokerau biodiversity, is an important step.

Council is required by legislation to undertake a wide range of actions to maintain natural values in the face of nationally declining trends in biodiversity due to pressures, including changes in land, freshwater, and sea use, introduced species, exploitation for food and resources, pollution, and the increasing threat of climate change.

An initial discussion was held with the Biosecurity and Biodiversity Working Party (B&BWP) on 4 October 2021, seeking support and direction around the development of a Taitokerau Biodiversity Strategy. The B&BWP supported the development of the strategy and agreed that advice should be sought from the Te Taitokerau Māori and Council Working Party (TTMAC) around the process to develop the strategy and engage/partner with tangata whenua. Endorsement from TTMAC to engage with the Māori Technical Advisory Group (MTAG) for this purpose was sought at the meeting on 25 November 2021 and approval was given.

Central Government had planned to release the NPS-IB in late 2021 / early 2022, however this date has been pushed out several times and there is now no certainty as to when it will be released.

Given the delay in releasing the NPS-IB, the uncertainty associated with some of its content e.g. Appendix 5 of the draft NPS-IB states that a regional biodiversity strategy must include SNA mapping and how actions will be resourced, and the high level of community and public engagement on other topics e.g. freshwater, it is recommended that progressing a Regional Biodiversity Strategy be delayed.

Rather than ceasing all biodiversity planning, it is recommended that it would be extremely beneficial to prepare an internal council biodiversity strategy which would clearly articulate councils' strategic direction for our biodiversity work programme, including our vision, goals, priorities, actions and necessary resourcing to deliver on our legislative role and functions. This approach would enable council to review its current approach and programme, allow time for the NPS-IB to be finalised, and set council up well for the next LTP process.

The Council Biodiversity Strategy could be similar in approach as the recently developed NRC Climate Change Strategy and associated Implementation Plan. Council current has the [Northland Biodiversity Ambitions and Actions Plan 2018-2028 draft](#), which may provide a useful start point for the review and development of a Council Biodiversity Strategy.

Staff seek the B&BWP endorsement of this proposal and will be available to answer further questions.

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## Ngā tapirihanga / Attachments

Nil

**TITLE:** **Biosecurity and Biodiversity Work Program**

**From:** Lisa Forester, Biodiversity Manager and Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity

**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental Services  
**Group Manager/s:** and Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 28 January 2022

### Whakarāpopototanga / Executive summary

The following table sets out the current and future work programme for the biosecurity and biodiversity teams for the coming year. It only includes work relevant to the Biosecurity and Biodiversity Working Party ToR.

The work plan for Biosecurity including the performance measures for 2021-2022 can be viewed at <https://www.nrc.govt.nz/media/g5ikhdzw/2021-2022-biosecurity-operational-plan.pdf>.

Monthly updates on activities that are underway in biosecurity and biodiversity can be viewed in the councils monthly Chief Executives Report to council. <http://northland.infocouncil.biz/>. Additional items of interest and activities are described in the table below.

BIOSECURITY		
Activity	Detail	When
• <b>New weeds</b>	<p>Preliminary work in advance of the review of the Regional Pest and Marine Pathway plan expected to begin this year.</p> <p>Grey willow - initial surveillance has been completed and a follow up planned. Grey willow is not currently included in the RPMPMP, but potentially occurs at low density in the region, though more intensive survey and sampling is needed to confirm if plants identified are sterile hybrids.</p> <p>There are limited resources to deal with new threats in addition to current RPMPMP species programs. More efficient digital data collection tools would help address the current workload (see new tools below)</p>	2022
• <b>Pet Trade plan</b>	There is no indication from MPI that a national pet trade accord would be settled in the foreseeable future although new rules could limit the sale and distribution of selected pets in Northland such as those that may damage waterways and aquatic fauna could occur given a review of the RPMP.	2022/23
• <b>Insects</b>	No new incursions of fruit fly over the last 2 years- insects are predicted to prosper under climate change and could pose risks to northland cropping and horticulture, this is an issue needing to be addressed as part of the biosecurity climate change strategy. Need to proactively develop closer links to production sector to enable rapid, coordinated responses supported by the sector in the event of an incursion	2022/23



BIOSECURITY		
Activity	Detail	When
<b>Freshwater pests</b>	New staff now onboard to activate plans for removal of koi carp and grass carp in selected waterways across northland, and to develop more engagement programmes and resources to raise awareness of the threat and the action required by the public. Partnerships with hapū to respond to freshwater pests expected to grow.	2022- 23
<b>Biosecurity research</b>		
<b>Biocontrol</b>	<p>Planning and delivering hui on marae (if possible) to raise awareness and understanding of biocontrol as an important tool for pest management in New Zealand. Aiming to schedule a TTMAC presentation to do the same and get input on the current consultation process.</p> <p>Working with the National Biocontrol collective to refine the draft National Prioritisation Tool and populate it. Manaaki Whenua Landcare Research (MWLR) was engaged to develop the tool for the Collective to provide some more rigour around decision making for biocontrol targets. The tool scores species based on a number of environmental factors and takes into account factors related to likelihood of success and cost. An initial test of the tool indicates that it will be a useful basis for future decision making but will require some further refinement to scoring and weightings to address some current bias.</p> <p>Working with Landcare Research on the National Assessment Protocol to improve the data collected on biocontrol releases to better be able to demonstrate results/impacts.</p>	2022-23
<b>Spartina control in far north sites</b>	Re-engaging with hapū, iwi and DOC to enable to resumption of spartina survey and control in Parengarenga, Rangaunu, Taipa/Mangonui and Whangaroa harbours.	2022-23
<b>New tools for pest plant work</b>	<p>Drone surveillance trials planned for spartina to look for undetected sites. If effective this will be an increasingly important tool as infestations likely increase at the southern boundary with the Auckland Region with their change to a Sustained Control approach to Spartina in the Kaipara Harbour. Staff will be engaging further with Auckland Council staff to manage this issue.</p> <p>Development of Pest plants team digital field collection tools and database stalled again due to GIS staff turnover. An external provider has been found who can hopefully pick up this work in June 2022. This tool is essential to improve the efficiency and quality of data collected, will improve the ease an accuracy of analysis and reporting and be an effective scheduling tool so that delivery timeframes are met.</p>	April 2022
<b>Regional Wilding Conifer Strategy</b>	Developing a regional strategy for Te Tai Tokerau to scope and prioritise future wilding pine control work and guide future bids to the National Wilding Conifer Programme.	March 2022

BIOSECURITY		
Activity	Detail	When
<b>Rail and rail weed control plans</b>	New staff member on board with focus on partnerships, will be engaging with road and rail authorities to help shift the current reactive approach to weed control and develop more strategic plans. There is also a need to engage at a higher level to advocate for more resource for weed control for roadside management.	March 2022 - ongoing
<b>Herbicide use</b>	Review and consolidate herbicide use procedures and assess the need for council policy for these activities.	August 2022

BIODIVERSITY		
Activity	Detail	When
<b>Biodiversity Strategy</b>	See agenda item for further details	2022/23
<b>FIF Dune Lakes</b>	Weed Control – Lake Tutaki (Poutō) treated with Reglone ¼ lake twice and monitored with good knockdown of hornwort. Mt Camel North lake and lake Egg (Poutō) both treated once with reglone and monitored showing some knockdown. Aquathol spraying by helicopter by two ¼ lake treatments is planned over the next three months. Awaiting consents.	2022/23
<ul style="list-style-type: none"> <li><b>Weed control</b></li> </ul>	Lake Karaka – see agenda item for further details	
<ul style="list-style-type: none"> <li><b>Fish</b></li> </ul>	Removal of grass carp in partnership with Ngai Takoptoi Kaitiaki Rangers at Lake Heather in Kaitiaia commenced with 22 out of 400 stocked fish caught. Further removal of grass carp planned for Lake Swan. Pest fishing delayed due to staff shortages.	
<ul style="list-style-type: none"> <li><b>Hui/Education days</b></li> </ul>	A hui with mana whenua lake partners is scheduled for March. Some education days cancelled due to COVID. One Noho Taiao lake event was attended in January	
<ul style="list-style-type: none"> <li><b>Sediment Works</b></li> </ul>	A sediment control plan adjacent to Lake Waikare (Kai Iwi) has been agreed with landowners and is in the consent process.	
<b>Lakes</b>	Annual lake ecological monitoring programme – 10 day survey with NIWA scheduled for March/April 2022 for eight LakeSPI and 10 plus Ecological Recce including two new waterbodies	Annual ongoing

BIODIVERSITY		
Activity	Detail	When
<b>Wetlands</b>		
<ul style="list-style-type: none"> <li><b>Monitoring programme for NPS (Envirolink)</b></li> </ul>	An Envirolink Project with Landcare Research to advise on a Wetland Monitoring Programme to align with NPS requirements is underway.	2022
<ul style="list-style-type: none"> <li><b>Wetland Mapping</b></li> </ul>	<p>A wetland mapping project was put to tender but none of the tenders were considered suitable and were rejected. Council is currently exploring options with another supplier with a proven track record and method. The current wetland maps are not up to date or accurate enough to meet wetland monitoring, protection, compliance and enforcement requirements.</p> <p>The detail of this project is reported to the Planning and Regulatory Working Party.</p>	1st stage 2022
<b>Outcome Monitoring</b>		
<ul style="list-style-type: none"> <li><b>Wetland Condition Index monitoring (WCI)</b></li> </ul>	Wetland Condition Index monitoring, assessing change in wetland condition as the outcome of Efund fencing – the 4 <sup>th</sup> three yearly monitoring of 30 wetlands is underway. Six wetlands monitored to end-Feb and the remainder monitored in March and April.	2022 and 3-yearly
<ul style="list-style-type: none"> <li><b>Wetland species surveys/monitoring – mudfish and Australasian bittern</b></li> </ul>	<p>Surveys were carried out at five locations to determine the presence of mudfish, including for the Lake Waikare sediment control project (black mudfish), prior to earthworks commencing, and at two private landowner sites for the threatened Northland mudfish, in conjunction with DOC's monitoring programme on PCL.</p> <p>Surveys were carried out at one site for bittern and the programme will be developed for further monitoring at more wetland sites.</p>	July – December 2021 and on-going
<b>Technical advice and expertise</b>		
<ul style="list-style-type: none"> <li><b>Wetland advice</b></li> </ul>	15 site visits and/or desktop analyses were carried out to provide advice to landowners on the state, extent and how to manage and protect wetlands on their properties.	July 2021 – February 2022 and on-going
<ul style="list-style-type: none"> <li><b>Wetland compliance and enforcement</b></li> </ul>	Six visits were carried out for wetland compliance and enforcement incidents, which provided support for Compliance staff issuing abatement notices for four incidents and two cases resulting in enforcement orders or prosecution which are still ongoing.	
<ul style="list-style-type: none"> <li><b>Consent applications</b></li> </ul>	Advice provided for four consent applications involving wetlands, and biodiversity/species advice for three consent applications.	



BIODIVERSITY		
Activity	Detail	When
<b>Terrestrial</b> <ul style="list-style-type: none"> <li><b>Tāika Biodiversity Values</b></li> </ul>	<p>Tāika (Mt Tiger) Forest is owned by Council and has several large patches of high value native forest and plantation forestry. A multidisciplinary biodiversity assessment, including vegetation, bird, bat and lizard surveys, is underway and due to be completed by June 2022 with an interim report to the Property and Investments Committee in March. A final report will include a biodiversity plan and recommendations around managing biodiversity values in the forest including weed control, pest control and management of threatened species and water quality.</p>	2022
<b>CoastCare</b> <ul style="list-style-type: none"> <li><b>Dune monitoring</b></li> </ul>	<p>The CoastCare and science teams have been undertaking summer dune monitoring including a pilot in the Bream Bay area with Northtec and Pautuharake monitoring dune fauna. The aim is to track the outcomes in dunes where restoration programmes are being undertaken in comparison to other areas.</p>	Annual
<ul style="list-style-type: none"> <li><b>Events and planting days</b></li> </ul>	<p>There was a good start to the planting season and some delays due to Covid, however most plantings are now completed with the final plantings scheduled for June. Weeding was done by communities and under contract at several planting sites. Some summer events were delayed or cancelled due to Covid.</p>	
<ul style="list-style-type: none"> <li><b>Kaitiaki rangers</b></li> </ul>	<p>Council assisted with \$5,000 funding to run a Kaitiaki Ranger programme through Ngati Kahu on the Karikari peninsula over the summer holiday season.</p>	

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### Ngā mahi tūtohutia / Recommended actions

Nil – presented for information purposes only

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### Ngā tapirihanga / Attachments

Nil