

**Biosecurity and Biodiversity Working  
Party**

**Wednesday 25 May 2022 at 1.00pm**

**AGENDA**

## Biosecurity and Biodiversity Working Party Agenda

Meeting to be held in the Council Chamber  
36 Water Street, Whangārei  
on Wednesday 25 May 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<br>Georgina Connelly | TTMAC representative<br>Juliane Chetham |
| TTMAC representative<br>Michelle Elboz | TTMAC representative<br>Nora Rameka       |   |

### KARAKIA

### RĪMITI (ITEM)

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#### 1.0 NGĀ MAHI WHAKAPAI/HOUSEKEEPING

#### 2.0 NGĀ WHAKAPAHĀ/APOLOGIES

#### 3.0 NGĀ WHAKAPUAKANGA/DECLARATIONS OF CONFLICTS OF INTEREST

#### 4.0 REPORTS

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**4.8** Kauri Protection and recent Biosecurity and Biodiversity incidents

*Kauri protection work has been ongoing and involving track upgrades, soil sampling and fencing to protect kauri stands on private land. Gavin Clapperton of the kauri protection team will be available to provide further detail.*

*This item also provides an opportunity for staff to provide a verbal update to the working party on any recent events involving new pest incursions and any other matters.*

|             |   |     |
|-------------|---|-----|
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## Karakia

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



**TITLE:** **Record of Actions – 23 February 2022**  
**From:** Mandy Tepania, Biosecurity PA/Team Admin  
**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on  
**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 23 February 2022 for review by the meeting.

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### **Attachments/Ngā tapirihanga**

Attachment 1: Biodiversity and Biosecurity Working Party Meeting Record of Actions [↓](#)











**TITLE:**                    **Receipt of Action Sheet - 23 February 2022**

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

**Authorised by**            Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on  
**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: Biodiversity and Biosecurity Working Party Receipt of Actions 23 February 2022 [↓](#)



























































































**TITLE:** **Biosecurity Operational Plan**

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

**Authorised by  
Group Manager/s:** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 17 May 2022

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### **Whakarāpopototanga / Executive summary**

The attached draft Operational Plan has been prepared as a requirement of the Biosecurity Act 1993 section 100B and should be read in conjunction with the Northland Regional Pest and Marine Pathway Management Plan 2017–2027 (hereafter referred to as the Pest Plan). It includes all species listed in the Pest Plan and describes how biosecurity programmes will be implemented during the 2022/2023 financial year.

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

1. That the report 'Draft Biosecurity Operational Plan' by Don McKenzie, Biosecurity Group Manager and Kathryn Lister, Biosecurity Partnerships Manager dated 25 May 2022, be received.
  2. That the Biosecurity and Biodiversity Working Party recommend the Draft Northland Regional Pest and Marine Pathway Operational Plan 2022–2023 be presented to council for approval.
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### **Background/Tuhinga**

The Northland Operational Plan aims to be a concise and accurate reflection of the content of the Pest Plan. Reviews of the Operational Plan are undertaken during the year, and staff believe this will be important as additional government funding for activities such as kauri protection become clearer under a national kauri protection Plan and the extent of current programmes of wilding conifers are confirmed. Section 100B of the Biosecurity Act states that that the Operational Plan will be completed within three months of the end of the financial year, and it is proposed that the draft Operational Plan for 2022/2023 will be considered by full Council at its July meeting.

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### **Ngā tapirihanga / Attachments**

Attachment 1: Biosecurity Operational Plan 2022-2023 | Mahere tautahi whakahaumarū taiao [↓](#)































































**TITLE:** PF2050 Progress Update

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

**Authorised by Group Manager/s:** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 17 May 2022

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### Whakarāpopototanga / Executive summary

The last month has seen some pleasing milestones achieved across both the Whangarei and Pēwhairangi Whanui projects. Commencement of possum eradication in the Te Whara / Bream Head and Ocean Beach farmland blocks has been a highlight, along with the establishment of draft eradication plans for all three peninsulas at Pēwhairangi Whanui.

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### Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information
  2. That staff update with further progress at the next working party meeting
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### Background/Tuhinga

#### PF Pēwhairangi Whanui (Bay of Islands)

Draft eradication plans have been prepared for all three peninsulas (Purerua, Kororareka, and Rakaumangamanga (Cape Brett.)) This work includes a more in-depth assessment of the costs associated with delivery, which will provide valuable data to populate 2022/23 council budgets.

The Original PF2050 Ltd funding was on a Whanui wide basis with the intention that planning, scoping and governance processes would be consistent across the three peninsulas. Engagement with each project over the last couple of months indicates that each peninsular project requires its own planning and engagement process due to differing background situations and objectives. This variation in approach is being discussed with PF2050 Ltd who are supportive of a revised approach.

The upcoming priority is to lead korero about effective governance and partnerships between each land care group and hapū, to ensure thorough input from all partners. This should enhance the mana enhancing agreement objectives as well.

Appointment of Pēwhairangi Whanui Project Manager will also be completed over the next month.

#### Whangarei Project

We are pleased to announce the appointment of our PF2050 manager for the Whangārei team, Vivienne Lepper, and also welcomed Matua Winiwini Kingi as a Tikanga Advisor to support our field team as a casual employee.

Work has continued with the development of an effective GIS and data capture system which has already provided valuable insights into possum and mustelid concentrations and a soft launch of the Whangarei PF website last week has been completed. This will review over the next week or two to iron out any issues and make improvements as necessary. This is an exciting achievement as it provides a platform from which future communications and project information can be shared and gives the community greater insight connection with the project.



The network of kill and live traps have accounted for 10 possums and 30 per cent of available toxin has been consumed after two weeks of laying possum baits.

Trail cameras are showing a range of possum and rat activity with a presence across all blocks. There is an early indication of overlapping mustelid and kiwi presence in the Te Whara (bream Head) block which may suggest a higher-than-expected risk to kiwi chick survival.

**Current Device Network:**

- 88 Kill Traps
- 90 Bait Stations (brodifacoum - 12.8kg / 194 g/trap)
- 82 Bait Stations (Double Tap (cholecalciferol and diphacinone)- 12kg / 110g/trap)
- 32 Leg Hold traps (later in June)

All private landowners adjacent to DOC land that will contain toxin have been contacted and the vertebrate toxin plan has been completed and peer reviewed.

Te Tiriti training for staff and PF community group members is being planned for late June. This was one of the desires communicated to the team from early community engagement hui and aligns with an offer from Whaea Moia Armstrong and kaumatua Hori Parata to deliver these.

**Hapu / iwi Partnership – Whangarei PF**

The PF programme is committed to developing strong hapū and Iwi relationships to ensure the programme is diverse and inclusive in design and approach. An invitation to korero between PF Manager and Ngāti Wai CEO occurred in late 2021 and early 2022 but has not yet been able to be extended to a wider hui.

An April blessing ceremony was postponed on account of Ngāti Wai concerns about the lack of hapū engagement. Follow on communications by the GM Biosecurity has not been responded to and at this stage we are awaiting further response by the Ngāti Wai Trust Board.

The intended Te Tiriti training planned for late June is hoped to be a lead-in to follow-on korero about the wider Kaupapa of partnership. Advice and input have been received from the councils Maori Engagement team who will continue to be consulted with and whose advice will be sought.

While we await a response, the Whangarei PF project delivery will continue, and will focus on fine tuning the operations and continue the set-up of possum control devices on the Taurikura ridge which is the next priority area.

The partnership will focus on engagement with current Whangarei Heads community groups, landowners, DOC, WDC and potential hapū pilot projects at Pataua and Maunga Taika.

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**Ngā tapirihanga / Attachments**

Nil

**TITLE:** Feral Deer

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

**Authorised by Group Manager/s:** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 17 May 2022

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### Whakarāpopototanga / Executive summary

This report provides an update on the sika eradication project and current northland deer incursions.

A goat cull across the area where sika deer are known from in Russell forest took place in February, and again in April 2022 and this work concluded phase two of the wider sika deer eradication program. Findings from the sika DNA trial (phase 1) showed the presence of a moderate population of feral goats which occupy the same habitat as sika and faecal pellets from goats and sika have a very similar appearance making it difficult at times to differentiate between the species. The cull reduced the goat population to low densities and has provided for more effective DNA survey as well as helping support the overall health of the forest.

The contractor for council, “Trap and Trigger” completed 70 hunter days, and culled 150 goats, 27 pigs and one sika deer. In addition, staff hosted a successful engagement gathering of local hapū, and landowners to provide an opportunity for them to meet with the hunters and ask any questions they may have about the project. Hapū and landowners were also taken by helicopter on a flight over the project area to view the terrain to understand the magnitude of the problem.

We are now planning for the sika survey to be carried out in October this year. The teams focus between now and then will be on engagement and landowner access agreements.

We are continuing to receive reports of deer escapes from a well-known deer farm near Kaiwaka. Since 2016 we have had nine escape events reported from this farm, three from this year. Our deer response contractors have responded to the most recent escapes and seven deer have been destroyed on the outside of his farm by private landowners. A letter has also been written to the Northern North Island Manager for the Department of Conservation requesting the Department consider revoking the farmers permit to farm deer. In addition, staff have been working with Northland Department of Conservation, OSPRI and MPI staff to agree on a streamlined protocol for responding to Northland deer farm escapes. This work has been particularly encouraging and DOC staff are taking a lead with OSPRI to develop a clear protocol for checking fences and enforcement.

In early May we received a report of an illegal release of 20 fallow deer into the Tangihua Forest. Staff have carried out extensive surveillance on foot, engagement with local farmers, drone aerial and thermal surveillance and not seen any evidence of a deer release. Staff will continue to monitor the area around Tangihua.

Grant McPherson has joined the deer incursions team as our new Biosecurity Project Lead – Feral Deer. Grant formally worked with Landcare Research on various wild animal control and biosecurity projects, the most recent being the Proof of Freedom project at OSPRI which aims at eradicating TB from New Zealand.

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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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**Ngā tapirihanga / Attachments**

Trap and Trigger Goat Cull Report - [2022 03 Report Goat Cull Russell Forest v5.pdf](#)

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**Ngā tapirihanga / Attachments**

Attachment 1: 2022 03 Report Goat Cull Russell Forest v5 [↓](#)





































**TITLE:** Progress on Road and Rail Plans with Agencies

**From:** Joanna Barr, Biosecurity Manager Pest Plants

**Authorised by** Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 17 May 2022  
**Group Manager/s:**

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### Whakarāpopototanga / Executive summary

This report provides an update on the progress made with road and rail authorities toward meeting their obligation under the Regional Pest Management and Marine Pathway plan to prepare and implement five-year road and rail weed management plans. It outlines the barriers to change and the planned and suggested actions to address these issues for further discussion.

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### Ngā mahi tūtohutia / Recommended actions

1. Working party note the content of this report
  2. Working party support the planned actions
- 

### Background/Tuhinga

The Northland Regional Pest and Marine Pathways Management Plan 2017 – 2027 introduced the requirement for road and rail authorities to prepare and implement a five-year road and rail weed management plan negotiated with and agreed to by Northland Regional Council (Rule 6.4.2.2). A further rule requires road and rail authorities to control pest plants where the adjacent or nearby land occupier is taking reasonable measures to manage these species or their impacts on pastoral production or environmental values (Rule 6.4.2.1), in response to complaints from directly affected land occupier, where the pest plant is present in the transport corridor at a such a density that significant cost is being imposed on that complainant.

The purpose of the weed management plans, and the other supporting rule, is to guide more proactive weed management in the road and rail corridor, to reduce the impacts of sustained control pest plants and the potential for spread to other properties. There is a secondary goal of rehabilitating transport corridors to improve their resilience to future weed re-invasion.

The rule dictates that the plans should include ‘any or all of the pest plant species in the Regional Pest Management Plan’, but gives specific priority to broom, Taiwan cherry, cotoneaster, gorse, wilding conifers, and wild ginger.

Given the scale of the road and road network to be managed, the new Plan rule directs road and rail authorities to develop annual operational plans with the following priorities:

- *through high-visibility public spaces such as town entrances.*
- *near schools and other public spaces.*
- *where resealing and/or rehabilitation is already underway or is planned.*
- *through areas of high biodiversity value.*
- *in areas with a low incidence of the target weed species.*
- *in areas adjacent to low re-infestation areas such as weed-free farmland.*
- *in areas with high traffic volumes.*
- *and on receipt of a complaint from a directly affected land occupier.*

The rules replace the more limited requirements of the previous Northland Regional Pest Management Plan 2010 -2015, in which the rules required the implementation of a control

programmes to progressively control four named species, being privet, gorse, pampas and wild ginger, in accordance with five-year management plans. That rule directed that these control plans prioritise areas of the network where the adjoining land was clear or only sparsely infested with the target weed.

### **Progress to date**

All roading authorities were formally advised of this requirement when the new Plan was adopted, were provided with guidance for developing plans, and subsequent meetings with staff were held to provide additional guidance and input.

Despite this, the majority of the road and rail authorities have failed to submit and implement plans that satisfy the intent of the rule. This is a continuation of a similar pattern from the previous requirement for the development of 5-year management plans for privet, gorse, pampas.

Waka Kotahi NZ Transport Agency (NZTA), responsible for the state highway network, is the exception to this. The NZTA engaged Opus to develop a relatively comprehensive plan in consultation with council staff and delivered a plan that was approved in 2014. This plan has anecdotally seen the NZTA taking a more proactive approach to weed management, but this has not been formally assessed. This plan was due to be updated in June 2019 to incorporate the changes in the new Regional Pest Management Plan, but we have struggled to get this work prioritised during the COVID response period.

The Whangarei District Council also submitted a plan in 2018, and this plan was used to secure co-funding from the NZTA for pest plant management. However, while the plan did reference the key criteria outlined in the RPMPMP Rules and guidance, it did not have enough detail around how these would be implemented, and in practice the focus and majority of the limited budget remains heavily weighted to control work where the driver is water table and sight line maintenance for road structure and safety purposes. Environmental weed control is still limited and being managed primarily through a complaint driven/point-record response rather than a more holistic and strategic approach to managing the road corridor.

The Kaipara District Council subsequently also drafted a plan closely based on the Whangarei District Council Plan, but this plan was not accepted by Council nor by the NZTA as being sufficient to meet their co-funding requirements.

There has been very little engagement in the process by Far North District Council, and no plan has been submitted. KiwiRail engaged in initial discussions with staff but did not progress beyond that and draft or submit a plan.

Until recently, with the employment of a team member focused on pest plant partnerships, pest plant staff have not had the capacity to apply the pressure and support needed to progress this issue.

In the interim staff have been working with roading authorities around annual priorities and supporting delivery work through a Council fund focused on targeting priority species in the road corridor.

From subsequent meetings with the roading managers to determine a path forward, it is clear that a significant step change is needed to make a material difference to how weeds are managed in the road corridor. The following key barriers have been identified:

- As a result of the scale of the network to be managed within the current budget envelopes the scope of the plans can have a very constrained starting point. Northland includes about 8,380 kilometres of road. KiwiRail manage 18,000 hectares of land and 3500km of rail corridor across New Zealand, 223 kilometres of which is in Northland.
- The primary focus of the roading authorities is road safety and protection of the infrastructure. The limited funding available is prioritised for water table and sight line maintenance. Weed management for other purposes is viewed as a more minor concern.
- A wider lack of focus on weed management means it is not often being prioritised at a Governance and policy level. Budgets have remained static or declined in real terms. While the district councils are receiving increasing complaints about weeds in the roading network, there is still considerably more public pressure on other areas of district council delivery.
- The roading authorities currently lack the expertise in their teams to design management plans based on ecological/weed management principles, so consequently a significant amount of support would be required to help design a different approach.
- The tools and approach currently in use need to be changed. The primary means of control is a single non-selective herbicide mix, is applied via gun and hose, which kills the grass ground cover, as well as the weeds targeted. A selective mix that was designed to protect grass ground cover would reduce reinvasion rates but would require a secondary treatment method for monocot species such as pampas. The gun and hose approach are also more likely to result in non-target impacts, especially where the target species is climbing vines such as moth plant. The current justification for this model is that it is the most cost-efficient to deliver. A change in approach would also require an investment in contractor training for weed identification and control knowledge.
- The asset management databases used to manage network were not designed with a wider weed management purpose in mind and are currently set up to record weed infestations at point based 'defect' records, rather than roads being able to be categorised/prioritised based on an overall priority or status. There has been limited priority given to survey and weed data capture given that system has limited capacity to manage and update the data. Internal project leadership would be needed to see what modifications could be made to the systems to enable them to be better used as planning and tracking tools for a weed management programme. The addition of simple contextual layers would assist the identification of priority areas (DOC priority sites, Council High Value Areas, SNAs etc).

### Planned actions

An additional staffing budget from the Long-Term Plan has meant the plant pest team is now able to engage more proactively with the agencies concerned.

The Northern Transport alliance (NTA), which is a collaboration between local government and NZTA, has recently elected a new chair, and the intention is to engage with the NTA via the Chair to create policy and a framework to be utilised by all of the local roading authorities. They are currently recruiting to fill a vacant position for the Kaipara (new position should be in place this month) and the Chair has committed to working through a strategy development process with NRC once this position is in place.

The below summarises the intended/suggested approach to address the barriers and make progress:

- Engage via the Chair of the NTA to progress the local roading authority approach and plans.

- Look at options for Council to advocate for increased focus and resourcing for weed management at a Governance level. Submit or support Long Term Plan and Annual Plan initiatives.
- Re-purpose Council funds previously used for direct weed control in the road corridor to support the engagement of consultants to help with the development of framework and or update of data management systems.
- Continue to advocate for and help drive a change in approach and the tools used, both with the roading authorities and their key contractors. Provide the required support for contractor training.
- Develop simpler mechanisms for adjacent neighbours to get approval and support to treat weeds in the road corridor from their side of boundary fence.
- Provide clearer recommendations for hygiene measures and seasonal mowing restrictions for inclusion in the plans and in maintenance contracts.
- Staff to follow up with the NZTA to revise expired plan.
- Where staff have offered support but there is continued lack of action, to escalate the continued non-compliance through more formal processes.

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### **Ngā tapirihanga / Attachments**

Nil

**TITLE:** FIF Dune Lakes programme and herbicide update

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

**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental  
**Group Manager/s:** Services, on 17 May 2022

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### Whakarāpopototanga / Executive summary

The recent application of Aquathol to control hornwort in three dune lakes has significantly reduced the hornwort in the lakes. However, wetland vegetation was also unintentionally damaged. Staff have completed a site visit to record damage to wetland vegetation at Lake Tutaki on the Poutō Peninsula. Four vegetation plots were established. Vegetation types and damage in each plot were measured. The plots will be revisited in six months to determine if vegetation is recovering or if a restoration plan is required. Two more applications of herbicide will be applied to the lakes next spring and summer, if required, to achieve the goal of hornwort eradication.

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### Ngā mahi tūtohutia / Recommended actions

1. That the report FIF dune lakes programme and herbicide update be received
  2. That staff report back on the outcomes of the next visit to the vegetation plots in six months' time.
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### Background/Tuhinga

As part of the Freshwater Improvement Fund Dune Lake Project hornwort was controlled in Lakes Tutaki and Egg on the Poutō Peninsula and Mt Camel, Houhora, using the herbicide Aquathol on the 29<sup>th</sup> and 30<sup>th</sup> of March 2022. The herbicide operation went as planned and it appears from initial surveys that the hornwort has been significantly reduced by the herbicide.

Eight days after the application of Aquathol (7th April) it was noted by NRC and DOC staff that lake margin and wetland vegetation had been unintentionally damaged by the herbicide at Lake Tutaki.

A report was prepared based on the preliminary information and this report recommended further investigation and the establishment of monitoring plots to measure the extent of vegetation change and (hopefully) recovery, over the next year. The area affected appeared to be less than 2 ha.

On 27 April 2022 the field team inspected areas at Lake Tutaki that were sprayed, assessed the damage to vegetation around the lake and in the wetland and established four vegetation plots to monitor change over time.

There were definite signs of vegetation damage but in general, the damage appeared less serious than expected with some evidence of vegetation regrowth. Areas of reedbed, mānuka and kānuka appeared less brown than in drone footage taken immediately after spraying by the Department of Conservation. Mānuka and kānuka had young leaves at the branchlet tips and rūpo crowns had fresh growth, although this plant does naturally die back over winter. Dieback was patchy, particularly in the mānuka stands at the southern end of the lake. Subcanopy vegetation was less damaged than canopy vegetation.



It is intended to return in around six months to remeasure the plots (around November) once rāupo is greening up for the summer. Non sprayed plots are a non-treatment or control reference and the results from the sprayed plots can be compared to them to see whether sprayed areas have recovered and whether a restoration plan will be needed.

A full report on the field trip and the establishment of the vegetation plots has been prepared and this is attached to the agenda.

Lake edge and wetland vegetation damage have also been recorded at Lake Egg and Mt Camel North. Vegetation plots at these lakes have not been established, but photos of the damage have been taken. Follow up visits will be undertaken in November to assess the vegetation at these lakes to see if recovery has occurred. If not, a restoration plan will be prepared.

Two further applications of Aquathol are planned in spring and summer 2022 to achieve the aim of hornwort eradication in the lakes. Lake SPI surveys will be undertaken before spring to determine the extent of remaining hornwort.

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### Ngā tapirihanga / Attachments

Attachment 1: Report Lake Tutaki and wetlands follow up field investigation of Aquathol damage [↓](#)

























**TITLE:** Update on CoastCare and dune monitoring programmes  
**From:** Laura Shaft, CoastCare Coordinator and Lisa Forester, Biodiversity Manager  
**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental  
**Group Manager/s:** Services, on 16 May 2022

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### **Whakarāpopototanga / Executive summary**

Sand dunes are recognised as a natural defence against coastal hazards and they are a habitat for native species, many of them threatened. Our remaining dunes are very vulnerable to damage from invasive weeds, coastal inundation and human activities such as driving in the dunes.

Since 2005, the Northland CoastCare programme has involved tangata whenua and communities around the region working to protect and restore their dunes to increase their biodiversity and natural hazard protection values. This work involves weed and pest control; planting; management of access over dunes; and education.

Over last winter 12,174 dune plants were put in the ground at 24 sites and work is currently underway preparing for the coming planting season. Over the summer NRC supported a Far North kaitiaki ranger programme aimed at reducing damage by beach users.

It is important to monitor the management actions that are taken. Since 2015 NRC has been part of the Coastal Restoration Trust's nationwide coastal dune monitoring programme. The information gained through monitoring helps to inform dune management and undertaking the monitoring alongside tangata whenua and community groups helps improve awareness and understanding of dune systems.

This summer NRC staff and kaitiaki monitored 12 sites including three new sites and we also undertook a pilot study, in collaboration with Patuharakeke Te Iwi Trust Board and Northtec, to monitor fauna at Bream Bay dune sites. This was aligned with the vegetation monitoring to provide a fuller understanding of dune health and the relationships between flora and fauna in the dunes and will inform advocacy and dune management work in the area.

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

1. That this report, "Update on CoastCare and Dune Monitoring Programmes" by Laura Shaft, CoastCare Co-ordinator, be received.
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### **Background/Tuhinga**

#### **CoastCare update**

CoastCare Te Taitokerau supports tangata whenua and community groups to protect and restore their dunes to increase their biodiversity and natural hazard protection values. This work includes weed and pest control, planting, management of access over dunes, education and monitoring. Over the 2021 planting season 12,174 dune plants were put in the ground at 24 sites. This was down from the previous year as the planting season was disrupted by Covid Alert Levels and a number of community/school events could not be held. Preparation is currently underway for the 2022 planting season. Although the winter is busy with planting, throughout the year volunteers and

contractors undertake dune restoration work such as weed control a maintenance of fencing, signage and accessways.



**Figure 1: Poutō School students planting spinifex at Pouto Point where fencing has been put in to control vehicle access through the dune area, allowing the dune to develop and providing a safe area for shorebirds.**



**Figure 2: Poriti School students planting wiwi on QEII covenanted dunes at Pataua North which are home to the threatened plant *Pimelea villosa*. Tahi are working to gradually replace exotic grasses in the dune area with native species to build a healthier and more resilient dune system.**

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### Coastal Buffers project

NRC has been a partner in the Tane's Tree Trust Coastal Buffers programme which has involved back dune planting trials at sites including Hukatere in the Far North, over the last three years. The trials have now been completed and factsheets drafted and distributed to partners for feedback. These provide guidelines for transitioning exotic coastal dune buffers to a buffer of native species, taking into account shoreline changes and climate change effects, and will be available on the Tane's Tree Trust and Coastal Restoration Trust websites.

### Kaitiaki Ranger programmes

One of the ongoing issues for groups working to restore their dunes is damage from vehicles. Trials in the Far North have shown that regular and sustained patrols by kaitiaki rangers are effective at reducing damage. Although central government funding was not available this summer, as in previous years, funding and support from NRC, Far North District Council and the Department of Conservation enabled a smaller programme to go ahead. Three Ngāti Kahu rangers representing Haititaimarangai Marae and Parapara Marae were out and about from Christmas to mid-February, and over the Easter weekend. They covered the Karikari Peninsula and Taipā.

### Dune health assessment monitoring

Dune monitoring provides a record of vegetation cover, native plant abundance and pest plants and this information can be used to inform ongoing dune management. Monitoring also enables tangata whenua, community groups and schools to work alongside Council staff and develop their understanding of their local dune ecosystems. Vegetation transects are measured to obtain a snapshot of dune health which is used alongside drone imagery and profile data to monitor the performance of restoration work such as planting, pest control and weed control.

Since 2015, NRC has been part of the Coastal Restoration Trust's nationwide coastal dune monitoring programme which involves surveying the status of vegetation cover and dune morphology and monitoring the performance of restoration programmes. This began with research and trials into suitable ways to monitor sand dunes, working with community groups and schools. In 2016 and 2017, transects (survey lines) were set up at several Northland sites and workshops were run with community groups and iwi.

This summer, for the second year, the Natural Resources team have assisted with running the dune monitoring site and the transects at 12 sites were measured, including three new sites. Tangata whenua and community groups assisted at some of these sites, but this was limited this year by Covid restrictions.

The surveys followed the guidelines developed by the Coastal Restoration Trust. Transects are placed perpendicular to the coast and the vegetation cover is recorded at 1m intervals. Data is uploaded to coastal restoration trust website and can be accessed by volunteers, tangata whenua and the public: <https://monitoring.coastalrestorationtrust.org.nz>.

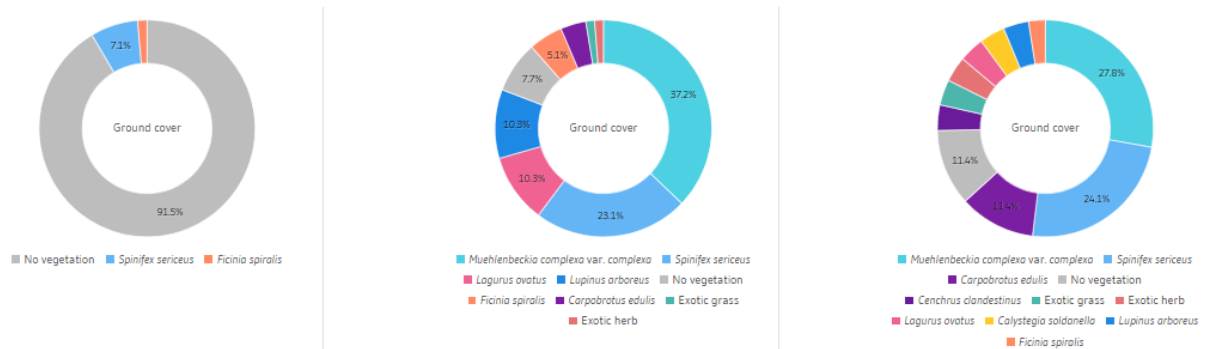


Figure 3: Example of data that can be viewed on the coastal monitoring database website. The pie charts show the species found at one of the transects near Ruakākā Racecourse in May 2017, December 2020 and January 2022.

### Drone images

Drone images were also captured at each monitoring site and these images were processed to create a high-quality contemporary image of the dune systems. This can be useful for assessing vegetation cover and even the presence of pest plants. The images can also be used to create a digital elevation model of the dune, which provides information about the dune's shape and its profile. Regular drone flights will complement the field monitoring and help us to track changes in vegetation cover and dune structure over time.

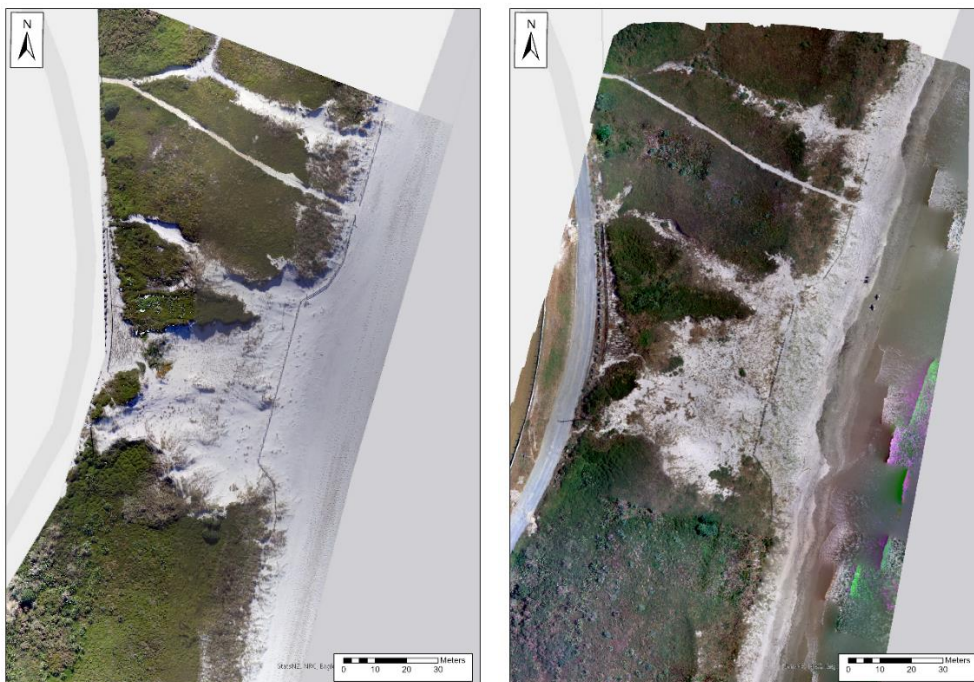


Figure 4: Drone images collected at Ruakaka in May 2018 and December 2021

### Fauna monitoring – Bream Bay pilot study

Over this summer staff collaborated with Patuharakeke Te Iwi Trust Board and Northtec on a pilot study in Bream Bay to monitor fauna (animals) in the dunes. Staff did this alongside the vegetation monitoring to get a fuller understanding of dune health, and the relationships between flora and fauna in the dunes.

The study assessed the current state of dunes in places where work (such as pest, weed control, and planting) is being undertaken, versus areas where no work is occurring. It measured the general health of the dune system and the life in it: vegetation, birds, insects, invertebrates, and lizards. A permit was obtained to allow us to catch, handle and release lizards for the purpose of identification.

Various methods for monitoring fauna were incorporated into the study in order to assess which were most successful. 48 artificial shelters, 40 wax tags and 64 tracking tunnels were installed at four study sites. In addition, four bird surveys and manual searches for katipō spiders were undertaken. A full report on this study is being produced by NRC and Patuharakeke.

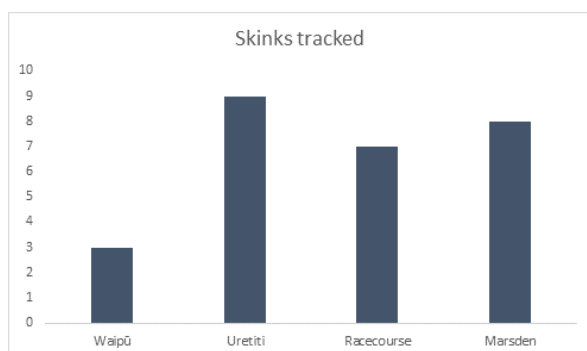


Figure 5: Skinks detected on tracking tunnel cards at Bream Bay sites

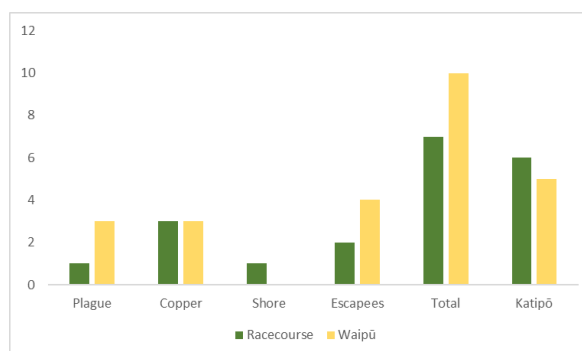


Figure 6: Skinks found in shelters placed in the dunes at Ruakākā and Waipū



Figure 7: Katipō spider, with egg sacs, found in a shelter on Ruakākā dunes



Figure 8: Shore skink found in shelter in Ruakākā dunes

Patuharakeke are keen to continue the monitoring and intend to use the information about the dune fauna to support their advocacy work around vehicle use and human behaviour in the precious dune systems. As well as continuing monitoring at Bream Bay we plan to use learnings from this study to incorporate fauna surveys into dune monitoring at other Northland sites to get a fuller understanding of dune health and how restoration work can enhance the ecology of these environments. This can inform dune management and advocacy for better success.

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### Ngā tapirihanga / Attachments

Nil





**TITLE:** **Update on Internal Biodiversity Strategy and Biodiversity Annual Report**

**From:** Lisa Forester, Biodiversity Manager

**Authorised by** Jonathan Gibbard, Pou Tiaki Taiao – Group Manager Environmental  
**Group Manager/s:** Services, on 18 May 2022

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### **Whakarāpopototanga / Executive summary**

The purpose of this report is to:

- Provide an update on the Council internal biodiversity strategy and recommend, to delay the development of this.
  - Recommend the production of a Council Biodiversity Department Annual Report for 2021-2022.
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### **Ngā mahi tūtohutia / Recommended actions**

1. Seek endorsement from the Biosecurity and Biodiversity Working Party to delay work on the Internal Council Biodiversity Strategy until March 2023 due to current workload commitments.
  2. Seek endorsement from the Biosecurity and Biodiversity Working Party to prepare Councils first Biodiversity Annual Report, highlighting council biodiversity activities and achievements for 2021-2022 financial year.
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### **Background/Tuhinga**

A discussion was held with the Biosecurity and Biodiversity Working Party (B&BWP), around the development of a Taitokerau Biodiversity Strategy. Given the delay in releasing the National Policy Statement for Indigenous Biodiversity, and the uncertainty associated with some of its content, it was agreed that progressing a Regional Biodiversity Strategy should be put on hold pending the release of the NPS.

Rather than ceasing all biodiversity planning, it was agreed that it would be beneficial, although not legislatively required, to prepare an internal council biodiversity strategy which would clearly articulate councils' strategic direction for our biodiversity work programme, including visions, 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 for the next LTP process. Council currently has the [Northland Biodiversity Ambitions and Actions Plan 2018-2028 draft](#), as a useful start point for the review and development of a Council Biodiversity Strategy.

The Biodiversity Department has a full programme of work to deliver over the next 12 months including additional work producing a State of the Environment (SOE) Report, which is a legislative requirement. The department is also in its final year of delivering the Freshwater Improvement Fund co-funded Dune Lakes Programme which is a major part of our work programmes. Current high workloads have been compounded by Covid delays and staff are currently at full capacity delivering these work programmes. It is therefore suggested that the internal Biodiversity Strategy, which is desirable but not essential, is also put on hold until March 2023. Commencing the strategy in March 2023 will enable current workload pressure to ease, provide capacity for the team to complete the biodiversity SOE report and still provide sufficient time to develop the strategy to inform the next

LTP. In the meantime, the Northland Biodiversity Ambitions and Actions Plan is still relevant to help guide work programmes.

Given the Biodiversity team will be preparing a State of the Environment Report on biodiversity, it is proposed that we aim to also deliver the first Biodiversity Annual Report for the 2021/22 financial year. The timing and style would be aligned to the Biosecurity Operational Report. Much of the information required to produce the Biodiversity Annual Report will also be needed to inform the SOE Report, hence we think we have capacity to deliver both.

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