

**Biosecurity and Biodiversity Working
Party**

Tuesday 21 February 2023 at 1.00pm

AGENDA

Biosecurity and Biodiversity Working Party Agenda

Meeting to be held in the Council Chamber
36 Water Street, Whangārei
on Tuesday 21 February 2023, 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, Councillor Geoff Crawford
Councillor Jack Craw
Councillor Marty Robinson
Councillor John Blackwell
Chair Tui Shortland (ex officio)

KARAKIA

RĪMITI (ITEM)

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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 – 31 August 2022**
From: Mandy Tepania, Audit and Assurance Lead
Authorised by Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on
Group Manager/s:

Whakarāpopototanga / Executive summary

The purpose of this report is to present the Record of Actions of the last meeting (attached) held on 31 August 2022 for review by the meeting.

Attachments/Ngā tapirihanga

Attachment 1: Record of Actions 31 August 2022 [↓](#) 

Biosecurity and Biodiversity Working Party
31 August 2022

Biosecurity and Biodiversity Working Party Record of Actions

Meeting held in the Council Chamber
36 Water Street, Whangārei
on Wednesday 31 August 2022, commencing at 1:00 pm

Tuhinga/Present:

Chairperson, NRC Councillor Jack Crow
Councillor Marty Robinson
Councillor Rick Stolwerk
Ex Officio Penny Smart
TTMAC representative Juliane Chetham
TTMAC representative Michelle Elboz

I Tae Mai/In Attendance:

Full Meeting

Pou Tiaki Taiao - GM Environmental Services
Pou Tiaki Pūtaiao – Biosecurity Manager
NRC Biosecurity Manager – Marine
NRC Biosecurity Manager – Partnerships
NRC Biosecurity Manager – PF2050 Whangārei
NRC Biosecurity Project Lead – Feral Deer
NRC Biodiversity Advisor
NRC Biodiversity Specialist Freshwater

Part Meeting

Planning and Policy – Policy Specialist

The meeting commenced at 1:05 pm.

Ngā Mahi Whakapai/Housekeeping (Item 1.0)

Ngā Whakapahā/Apologies (Item 2.0)

Councillor Justin Blaikie
TTMAC representative Nora Rameka
TTMAC representative Georgina Connelly
Pou Tātaki GM – Kaipara Moana Remediation – Justine Daw

Biosecurity and Biodiversity Working Party
31 August 2022

Record of Actions – 25 May 2022 (Item 4.1)

Presented by: PA – Biosecurity Services

Agreed action points:

- No actions required

Receipt of Action Sheet - 25 May 2022 (Item 4.2)

Presented by: PS – Biosecurity Services

Agreed action points:

- All actions marked as complete

PF2050 Update and Emerging Issues (Item 4.3)

Presented by: Biosecurity Manager – Predator Free Whangārei

Agreed action points:

- The working party note the information provided, page 11 – item noted
- Discussed the project timeframe and the extra efforts being made to strengthen community and hapū relationships with a focus on longevity of the program. Working party indicated their understanding of the need to engage appropriately and that this would lead to delays in implementation.
- Working party supported the recent meeting with the new CEO of PF 2050
- The staff update with further progress at the next working party meeting, page 11 – recommendation supported

Feral Deer Update and Future Planning (Item 4.4)

Presented by: Biosecurity Project Lead – Feral Deer

Agreed action points:

- That the working party note the information contained in the report, page 16 – item noted
- Working party support the collaboration across DOC, MPI and Council
- Staff to update on further progress at a future working party meeting, page 16 – recommendation supported

TITLE: Receipt of Action Sheet 31 August 2022
From: Mandy Tepania, Biosecurity PA/Team Admin
Authorised by Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on
Group Manager/s:

Whakarāpopototanga / Executive summary

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

Nga mahi tutohutia / Recommendation

That the action sheet be received.

Attachments/Ngā tapirihanga

Attachment 1: Receipt of Actions 31 August 2022 [↓](#) 

TITLE: **Fall Army Worm Update**

From: Nicky Fitzgibbon, Biosecurity Manager - Incursions and Reponse

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

Whakarāpopototanga / Executive summary

This report provides an update on the current extent of fall armyworm moth and management implications in Te Taitokerau.

Ngā mahi tūtohutia / Recommended actions

1. That the Biosecurity and Biodiversity Working Party note the information contained in this report.
 2. That an update be provided to a future Biosecurity and Biodiversity Working Party.
 3. That the Biosecurity and Biodiversity Working Party endorse staff to seek a council decision on establishing a Biosecurity Special Reserve Fund.
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Background/Tuhinga

The fall armyworm moth (FAW) is a pest that can feed on over 350 plant species, preferring grasses and cereals. Vegetable hosts include corn, asparagus, beans, peas, beetroot, brassica, capsicum, cucurbits, eggplant, onions, kumara, lettuce, and tomatoes.

Native to the Americas, it is actively spreading around the world and since 2016 has been introduced to Africa, Asia, Australia and now New Zealand. First identified in New Zealand in Tauranga in March of 2022 it has now spread across the country to as far south as Central Otago (as of 3 February 2023).

It is believed that the arrival of FAW in New Zealand was via wind-dispersal from the east coast of Australia, following a recent outbreak in that region combined with favourable wind conditions facilitating transport over the Tasman Sea.

Response Update

In the current crop season (starting 1 September 2022) there have been 93 positive detections (as of 3 February 2023) including multiple farm locations in the South Island. Most detections in the current season have been the result of regular crop-scouting.

This response is being managed under the Government Industry Agreement (GIA) which operates as a partnership between primary industries and government to manage pests and diseases that could significantly damage New Zealand's primary industries, economy, and environment.

Under GIA, signatories share the decision-making, responsibilities, and costs of preparing for – and in this instance responding to – biosecurity incursions.

The FAW governance group consists of Process Vegetables New Zealand, Vegetables New Zealand, Onions New Zealand (represented by HortNZ), Seed and Grain Readiness and Response, and Biosecurity New Zealand (BNZ). It is likely to transition to an industry-led response in the first quarter of 2023.

The intent of the response is to reduce the impact of FAW on New Zealand primary producers and taonga species by:

1. understanding the distribution of FAW within NZ using sector-led surveillance;

2. effectively manage identified FAW populations, reducing the risk of a reservoir population growing at the start of next spring and;
3. further understand FAW's ability to persist in NZ and specific impacts to growers and taonga species.

Current activities include a research programme led by Better Border Biosecurity (B3) to understand the survival, distribution and potential impacts of FAW in New Zealand. From September 2022, more than 200 FAW pheromone traps have been distributed around the country to support the B3 research work.

There are also promising signs that a native parasitic wasp is attacking FAW. While this research into this is still in its early stages, it could mean a degree of natural control available to farmers in the near future.

In addition, the recent approval of the insecticide spinetoram, known commercially as SpartaR, can now be used for ground application to control fall armyworm.

How FAW fits into a broader perspective - Biosecurity and Climate Change

As a tropical species, the risk analysis for FAW indicated the moth would struggle to establish in New Zealand, as areas with preferred hosts (maize and corn) did not necessarily have the correct climate. It was predicted that FAW would be unable to hibernate over winter, and populations were likely to die out and therefore was considered low risk.

Unfortunately, due to the mild (wet and warm) winter in 2022 the overall mean temperature did not go below the lethal threshold and FAW is now considered established, with populations being found across New Zealand.

In the context of a changing climate, this scenario is likely to become more common, changing Northland (and New Zealand's) risk profile. On top of those already considered high-risk, the potential establishment of subtropical pests and current seasonal immigrants are of greatest concern. The pest status of some species already present in Northland may change significantly as a result of climate change. In particular, currently innocuous 'sleeper' weeds, pests and diseases may become problematic due to changing ecological interactions with host plants and natural enemies.

We recommend that addressing the changing landscape of pest management in view of a changing climate best sits within our next Regional Pest Management Plan review (the subject of another item in this meeting's agenda). In addition, we recommend supporting our research partners in a large science bid aimed at getting a more granular understanding of these risks for Te Taitokerau.

However, climate is just one of several factors that affect invasion potential, import pathways, the types and volume of commodities traded, and international pest distributions and it is likely that host suitability may also change in the future.

Our role to support the primary sector, FAW outbreak and other new to Northland pests:

Regional Leadership

Northland Regional Council (NRC) has a key role under the Biosecurity Act 1993 to provide regional leadership and coordination for pest management activities in the region.

Following an initial hui last year held in Paihia by BNZ to gauge regional appetite, we are currently in follow up discussions with Biosecurity New Zealand about establishing a biosecurity collective similar to Tauranga Moana Biosecurity Capital (TMBC) <https://tmbiosecurity.co.nz/>

We think this would be a positive step for Te Taitokerau and would align with our strategic intent of improving Northland's biosecurity through building awareness, connection, and capability. High level objectives for such a program could include:

1. To promote holistic and integrated management of Northland's biosecurity through the sharing of knowledge and expertise;

2. To provide for hapū and Iwi leadership and mātauranga Māori in the management of Northlands biosecurity;
3. To build collaboration across hapū and Iwi, industry, business, science and mātauranga Māori experts, central government and local government to achieve biosecurity excellence and;
4. To build connections with our communities and the importance of biosecurity.

Such a collective could initially include Northlands primary sector stakeholder groups, hapū and Iwi. Given the current resource constraints, the size and scope of additional projects under this collective will be dependent on the availability of funding. It is envisaged that its role will initially be catalytic, facilitating collaboration amongst the biosecurity community, leveraging funding, and providing information to enable the stakeholders to undertake their own activities that contribute to the overall vision of biosecurity excellence. If NRC were to play a leadership role in establishing and or providing administrative support for such a collective, we will be seeking additional funding from central government.

Staff also see merit in establishing a Special Reserve Fund within council that would provide for biosecurity contingencies. This fund would be administered alongside other council special reserves and funded via any underspend in the current year. The fund would allow for timely regional responses in situations where central government is unwilling or unable to assist our communities and primary sectors.

Other initiatives that fit with the role of regional leadership include:

- Continued dissemination of the most up-to-date information, including through our industry stakeholder networks (e.g., horticulture groups, dairy, cropping etc.) We recommend that the horticulture website (<https://www.hortnz.co.nz/news-events-and-media/media-releases/managing-the-plant-pest-fall-armyworm/>) gives the latest updates and news.
- Engagement and education activities – AMP shows, comms networks etc.
- We could investigate ramping up our regional monitoring of other crop insects like we did many years ago for tropical grass webworm.
- Facilitation of a large MBIE science bid with a focus on developing better resilience to new pests to northland in the face of climate change.

Ngā tapirihanga / Attachments

Nil

TITLE: **Review - Regional Pest & Marine Pathways Plan 2017-2027**

From: Kathryn Lister, Biosecurity Partnerships Manager

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

Whakarāpopototanga / Executive summary

A core function of council's role in the biosecurity system is the maintenance of an up-to-date Regional Pest Management Plan (RPMP). RPMPs provide the council with a wide range of regulatory tools to enable effective delivery of council-led pest management while ensuring others contribute to important aspects of pest management (e.g., by regulating the sale of pest species).

The existing Northland Regional Pest and Marine Pathway Management Plan came into effect in 2017 for a 10-year period. A new plan is, by law, required by 2027. It is no surprise that the occurrence and extent of pest species populations has changed significantly over a 10-year period, particularly in the context of a changing climate, presenting new risks and reducing others due to advances in technology or management tools. In addition, the cultural, economic, social, and environmental contexts in which pests are viewed can also alter substantially over the course of a decade and we anticipate that leadership in this work may need to look different to align with the direction mana whenua, communities and council wish to take.

A review of the RPMP for Northland could take the form of 1) a full review including in-depth consultation and a revised full cost benefit analysis; or 2) a shorter more concise process with key focus areas, including banning species from sale and distribution and tougher rules for the illegal release of pest species. We recommend a full plan review as our preferred approach, effective immediately. Delivery of a complete revised RPMP, operative on or before 2027, with a full qualitative cost benefit analysis and a broad, inclusive consultation process will give effect to Te Tiriti, deliver better partnerships with our industry partners and stakeholders, and promote resilience to our natural environment and primary industries in the face of changing climate impacts and other stressors.

Ngā mahi tūtohutia / Recommended actions

1. That the Biosecurity and Biodiversity Working Party note the information contained in this report.
2. That the Biosecurity and Biodiversity Working Party endorses staff to bring an options analysis and our preferred approach to future TTMAC and council workshops.

Background/Tuhinga

Introduced pest species (plants, animals and pathogens) are among the most significant threats to indigenous biodiversity and food security in the Northland region, and also impact on other values such as human health and our northland culture. Northland Regional Council (NRC) has a key role under the Biosecurity Act 1993 to provide regional leadership and coordination for pest management activities in the region. A core function of NRCs role in the biosecurity system is the maintenance of an up-to-date Regional Pest Management Plan (RPMP). RPMPs provide the council with a wide range of regulatory tools to enable effective delivery of pest management by the council and by ensuring others contribute to important aspects of pest management (e.g., by regulating the sale of pest species).

The existing Northland Regional Pest and Marine Pathway Management Plan came into effect in 2017 for a 10-year period. A new plan is therefore required by legislation on or before 2027. The occurrence and extent of pest species populations can change significantly over a 10-year period, particularly in the context of a changing climate, with new risks presenting, such as the impact of insect pests and

new diseases in the primary sector industries of Te Taitokerau while others become reduced due to advances in technology or management tools. For example, our current RPMP contains rules to safeguard kauri. However, in August 2022 the National Pest Management Plan (NPMP) for the protection of kauri came into effect and, where there is duplication or inconsistencies with the national plan, the rules in the national plan will take precedence. We propose that our current rules remain in place until the next review, at which time these inconsistencies can be addressed, and our rules removed or amended as appropriate. In addition, an inter-regional or national marine pathways plan (The Clean Hull Plan) is also in development. The minister for biosecurity has indicated a willingness to adopt a single national plan, which would provide more comprehensive management of marine pest spread among regions and would also reduce the risk of inconsistencies arising among the regional plans (e.g., due to legal challenge to one or more regional plans). A national marine pathways plan could, in time, supersede Te Taitokerau's current marine biofouling rules.

Furthermore, the cultural, economic, social and environmental contexts in which pests are viewed can also alter substantially over a 10-year period and we anticipate that leadership in this work may need to look different to align with the direction *mana whenua*, our communities and council wish to take in governing and protecting Te Taitokerau natural environment, economy and way of life from the impacts of invasive species. We expect that a reasonably long lead in time will be necessary to capture the views of our treaty partners and key stakeholders, including industry partners, about how pest species should be managed for a new RPMP to become operative by 2027. Political and community pressure to include additional sections, influence priority areas or elevate the importance of certain sections will all take time to carefully analyse and work through.

A range of opportunities are presented by an early, focused and detailed engagement process, including authentic co-design with *mana whenua*, in-depth assessments of the relevant implications of climate change on our biosecurity system in Te Taitokerau, tougher rules for sale and distribution, and better alignment with existing council programmes (e.g., Biodiversity Strategy and other Biodiversity workstreams). For example, we currently describe our non-regulatory work programmes within our RPMP; however, there is the option of preparing a wider 'Biosecurity Strategy' or even a combined 'Biosecurity and Biodiversity Strategy' as a complementary document. This option would see the RPMP treated solely as a regulatory instrument as part of the wider strategy which would set out the strategic management of all harmful organisms within the region and detail a range of other relevant and complimentary non-regulatory partnerships and work programmes.

We are seeking to initiate work on the development of the next RPMP immediately and suggest that the Biosecurity and Biodiversity Working Party (BBWP) provides critical governance oversight of this process. The BBWP would play a key role in ensuring we have thought carefully about the gaps and opportunities for biosecurity in Te Taitokerau for the next decade and beyond and oversee a process to ensure we capture the information needed from our communities to work better together. It will be a challenging project; however, completing a review will set the direction of pest management for the next ten years in the region and be a significant strategic outcome of the working party achievements for the triennium.

The project scope of the RPMP review would include the following tasks:

- research and pest risk assessments where we examine the emphasis and balance between the risks posed to the primary sector and environment
- drafting of a cost benefit analyses, cost allocation analyses and other documentation required to satisfy requirements under the Biosecurity Act
- *mana whenua* engagement
- stakeholder engagement, sufficient to satisfy requirements under both the Biosecurity Act and Local Government Act
- advice to elected members to support decision-making processes
- public consultation, sufficient to satisfy requirements under both the Biosecurity Act and Local Government Act

- drafting of a proposed plan and any amendments required following consultation
- responding to any legal actions that may arise in response to the notified plan
- making the final plan operative, including all associated requirements under the Biosecurity Act publicising the final version and socialising it with internal stakeholders

Options analysis

In the short term (next 12-18 months), it is expected that resourcing can be met through current FTE and a re-distribution of existing operational budget. It is likely additional operational budget will need to be obtained in the next LTP to support broad consultation and mana whenua input into the new proposal. Some risks to the project include uncertainties around the Biosecurity Act Review, alignment with other regional plans and adequate resourcing. A description of options are provided below:

Options		
	Pros	Cons
Full plan review - Deliver a complete review of the RPMP with a new plan operative in 2027; full CBA; full consultation	<ul style="list-style-type: none"> • Give effect to Te Tiriti and Tāiki ē • Develop better partnerships with industry and stakeholders • Sets us up well for future climate change impacts and changes to biodiversity legislation 	<ul style="list-style-type: none"> • Additional resources needed
<i>This is our preferred and recommended Option</i>		
Partial plan review – Essentially roll-over the current plan but undertake review and changes to a small number of rules of more immediate concern (e.g., banning species from sale, tougher rules for release of animals)	<ul style="list-style-type: none"> • Faster provision of new rules where they are needed • Lower cost 	<ul style="list-style-type: none"> • Missed opportunity to consider primary sector interests and for improved partnerships and delivery • Misalignment with other regions
Do nothing and let the current plan expire	<ul style="list-style-type: none"> • No cost involved 	<ul style="list-style-type: none"> • No rules will be in place and the region misses all opportunities to improve pest resilience.

Preferred Option: Full plan review - Deliver a complete review of the RPMP with a new plan operative in 2027; full CBA; full consultation.

Ngā tapirihanga / Attachments

Nil

TITLE: Update on Wetland Mapping Project

From: Justin Murfitt, Strategic Policy Specialist

Authorised by Ruben Wylie, Pou Tiaki Taiao – Group Manager Environmental Services, on
Group Manager/s: 10 February 2023

Whakarāpopototanga / Executive summary

This report provides an overview of a collaborative project between NRC and the Kaipara Moana Remediation programme to map wetlands in Te Taitokerau, including next steps and timeline for completion.

Ngā mahi tūtohutia / Recommended actions

1. That the report Update on Wetland Mapping Project by Justin Murfitt, Strategic Policy Specialist be received
2. That progress with the wetland mapping project be reported to the next Biosecurity and Biodiversity Working Party meeting.
3. That a draft communications plan on the wetland mapping project be presented to the Biosecurity and Biodiversity Working Party for comment prior to wetland maps being made public.

Background/Tuhinga

Wetlands are very important habitats for native species, they also protect our waterways by filtering out harmful pollutants (such as sediment), moderating flows during heavy rain and supplementing them during drought – they are also very important cultural resource for Māori. However, Te Taitokerau has lost a significant proportion of its wetlands – historically around 35% of Te Taitokerau was but this is now likely to be about 3.2%¹ (Refer table 1 below).

Table 1: Historic (c. 1840) and current area of wetlands in Northland (source Clarkson and Price 2022)

Wetland type	Total area (ha)		Proportion remaining
	Historic	Current	
Bog	16,253.5	881.5	5.4
Fen	8,463.6	43.4	0.5
Marsh	34,988.4	1,045.8	3.0
Pakihi & Gumland	133,622.9	2,774.4	2.1
Seepage	NA	25.8	-
Swamp	259,922.1	9,520.4	3.7
Total	453,250.6	14,291.2	3.2

¹ Clarkson, B. R. & Price, R. J. (2022) A Framework for monitoring Northland wetlands. Manaaki Whenua – Landcare Research.

Remaining wetlands are in varying states and facing a range of pressures due to weeds and pests, human modification, land use intensification and drainage and are likely to be particularly vulnerable to a changing climate.

We have imperfect knowledge of the number, type and quality of wetlands across Te Taitokerau – this is in part because current wetland mapping is incomplete and while they are reduced in extent, wetlands are relatively common features in our landscape but can be difficult to monitor. NRC has mapped some wetlands and made these publicly available: <https://localmaps.nrc.govt.nz/localmapsviewer/?map=55bdd943767a493587323fc025b1335c>

However, these maps are far from comprehensive or accurate – this lack of spatial information is common to most regions in Aotearoa NZ and is one of the reasons wetlands have been identified as a priority by central government policy. National policy direction on wetlands has been included in the National Policy Statement for Freshwater management 2020² (NPS-FM) and the National Environmental Standards for Freshwater 2020³ (NES-F).

The NPS-FM direction on wetlands focuses on the protection and management of natural inland wetlands (wetlands that are not in the coastal marine area) and includes:

- Policy seeking no further loss of extent of natural inland wetlands, that their values are protected, and their restoration is promoted (Policy 6). The NPS-FM also requires policy to this effect be included in regional plans (Clause 3.22).
- A requirement to identify and map natural wetlands of 0.05ha or greater and those of lesser extent if they are known to contain threatened species (Clause 3.23(1)) – the mapping is to be completed by 2030. This timeframe recognises that mapping all inland wetlands in a region will be challenging and will take time and resource.
- A requirement to create an inventory of all mapped natural inland wetlands that provides information on location, area and wetland type (Clause 3.23(5)).
- The requirement to develop a monitoring plan that monitors the condition of natural inland wetlands and can be used to assess whether there is a loss of wetland extent or values – it is also to include measures to respond to any loss of extent or values and identifies (Clause 3.23(6)).

The NES-F includes quite prescriptive rules (Part 3 Subpart 1) that apply across Aotearoa NZ and are intended to protect natural inland wetlands from human modification – unless explicitly provided for⁴ in the NES-F, activities that could result in loss of wetland extent are either a non-complying or prohibited activity. Central government Stock Exclusion Regulations⁵ also require stock to be excluded from natural wetlands 0.05ha or more on ‘low slope land’. The Proposed Regional Plan for Northland also includes rules and policies designed to protect both coastal and inland wetlands.

In summary, it is extremely difficult to manage natural resources such as wetlands without a good data on their location, extent and condition. For these reasons and to give effect to direction from central government, NRC has partnered with the Kaipara Moana Remediation programme to map natural wetlands in Te Taitokerau. A contractor was engaged in June 2022 (Biospatial Ltd) to map wetlands using a combination of LiDAR, aerial imagery, spectral imaging and remote sensing to create maps of wetland ‘candidates’ generated by machine learning (wetland ‘candidates’ are *potential* wetlands identified by the machine learning process). The wetland ‘candidates’ will then be checked

² <https://environment.govt.nz/assets/publications/National-Policy-Statement-for-Freshwater-Management-2020.pdf>

³ <https://www.legislation.govt.nz/regulation/public/2020/0174/latest/LMS364099.html>

⁴ The NES-F provides for a range of activities that could affect wetlands including wetland restoration / maintenance, urban development, specified infrastructure, quarries and natural hazard works – activity status is set in the NES-F and varies depending on the nature of the activity.

⁵ <https://www.legislation.govt.nz/regulation/public/2020/0175/latest/LMS379869.html>

against high quality imagery to assess accuracy of the process. If needed the machine learning will be refined. This approach is cutting edge and staff understand that it is a NZ first.

It is intended that the wetlands maps be made publicly available on the NRC website. The wetland maps will be useful for:

- Identifying potential restoration and enhancement opportunities to support the restoration of the Kaipara Moana and other parts of Northland.
- Targeting support for landowners across Northland to protect and enhance wetlands (e.g. through the E-Fund)
- The development of Freshwater Farm Plans that will be required under the Resource Management Act 1991.
- Creating a wetland inventory and associated monitoring programme (as required by the NPS-FM)
- Providing greater certainty in consenting and compliance processes and determining when rules apply (or don't).

Next steps and timeframes

The validation process is likely to start in late February – this will involve staff from NRC and Biospatial Ltd checking wetland ‘candidates’ against high quality aerial imagery. This will provide an indication of how accurately the process identifies wetlands – the validation process will indicate whether the machine learning needs to be refined (staff hope to give a verbal update to the working party at the meeting). The next step will be to produce polygons / maps of wetlands of 0.05ha or more – these will again be checked before finalising wetland maps. The immediate priority will be validating candidates and wetland polygons / maps for the Kaipara Moana rohe followed by the rest of Northland.

It is anticipated that the wetland maps will be available in the second half of this year, but this depends on a) how well the machine learning process works and the need for refinement and b) how long the validation process takes. While it is not envisaged that staff will ‘ground-truth’ wetlands maps through site visits, the maps can be refined over time as monitoring progresses and more information comes to hand.

Prior to the wetlands maps being made publicly available, a communications plan will be developed to ensure the reasons for the mapping is understood and the availability of the maps is widely communicated to tangata whenua, stakeholders and interested parties. It is recommended that a draft communications plan be presented to the working party for comment prior to the release of the maps or any associated media / public communications. It is also recommended that the Biosecurity and Biodiversity Working Party be kept updated on progress with the project.

Ngā tapirihanga / Attachments

Nil

TITLE: Kauri Projetection - Update on Funding and Project Plan

From: Chris Beard, Biosecurity Officer - Marine

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

Whakarāpopototanga / Executive summary

This item contains an update on the Kauri Protection work programme. A detailed work programme for the current year is included and a further budget bid has been submitted to MPI for three years of funding beyond July 2023 which totals \$1.7 million dollars.

Ngā mahi tūtohutia / Recommended actions

1. That the Biosecurity and Biodiversity Working Party note the information contained in this report.
2. That the Biosecurity and Biodiversity Working Party receive a further update on progress at a future working party meeting.

Background/Tuhinga

In 2021, the Government announced an increased investment in kauri protection totalling \$32 million over five years (2021-2026) which saw the establishment of Tiakina Kauri within Biosecurity New Zealand and the launch of a national Kauri Protection Plan. Northland along with Auckland, Waikato and Bay of Plenty are regions which are benefitting from the national plan and new government funding.

Key stakeholders in northland in addition to the NRC include the four iwi entities of Kauri Ora, (Ngātiwai, Ngāti Kuri, Te Rarawa, and Te Roroa) Department of Conservation and Ministry for Primary Industry representatives, and district councils. One of the challenges facing the programme is to ensure all stakeholders are aware of each other's work programmes and are working in a consistent way across land of all tenure to reflect the intentions of the national plan. In view of this we understand a regional hui is being planned by Tiakina Kauri for 2023 to promote awareness and understanding.

Over recent months the Kauri Protection team has undergone significant change, with the implementation of The National Pest Management Plan (NPMP) and recruitment of new staff. Staff numbers now equal four full time equivalents which meets the long- term plan objective for 2023. Several projects are underway, and others planned for this summer season. External funding received from MPI and MBIE totals more than 3 million dollars over the last two years and the programme expects to deliver more than \$1.2 million dollars' worth of kauri activities in the current financial year. A further budget bid has been submitted to MPI for three years of funding beyond July 2023 which totals \$1.7 million dollars.

Actions and outcomes for the previous year can be found within the annual report at <https://www.nrc.govt.nz/media/lyknhr4/2021-2022-operational-annual-report.pdf> and a detailed breakdown of activities for the current financial year follow.

Engagements	
Workstream	Detail
Clean Card Workshop	Plan, organise and delivery of kauri protection workshop for the year
School Education Visits	Present to school age groups across Northland. All ages.

Events	Attend public events like field days, shows etc to promote awareness, key messages
Pig Hunting Clubs	Maintain pig hunting club relationships, attend comps, deliver and promote key messages
Engagement Plan	Establish engagement plan and calendar, bring together engagements and expand on existing ones with capacity
Soil Sampling	
Soil Sampling	Increase volume of sampling, targeting new and follow up sites 1. Target positive sites to determine the extent of pathogen and disease presence at a site 2. Target sites with undetected results to build confidence of absence Train local kaitiaki at mana whenua sites. Improve knowledge of pathogen and disease presence or absence at sites. Start site specific.
	Kauri Site Investigations (PA response to enquiries) <ul style="list-style-type: none"> Predicted to increase following Tiakina Kauri February media launch
Protectable Areas	Awaiting direction from Tiakina Kauri. Consider looking at determining protectable sites based on absence of pathogen and other factors. TBD
Hygiene	
Stations	Deliver stations to new sites in Northland with private or public tracks on private land to protect kauri
Hygiene Kits	Through engagements deliver hygiene kits to the community. Find and implement an alternative to the boot bag and discuss obtaining more collateral with Tiakina Kauri. Sterigene disinfectant Supplied via NRC Contractors and Community Groups maintaining stations.
HS Ambassadors	Investigate possibility of paying for kaitiaki ambassadors at more popular walk tracks in Whangarei and other locations on private and TLA land
Station Maintenance	Ensure previous hygiene stations installed are adequately maintained. Check if local people who have volunteered to maintain are compliant.
Hygiene MKIII	
MKIII Stations	Deliver and install MKIII hygiene stations to Waitangi Treaty Grounds. Replace the Mair Park station with a MKIII
	Hygiene Station Installations Completed <ul style="list-style-type: none"> Waitangi Treaty Grounds AH Reed Kauri Reserve Mangawhai – Tuaraki Rd Brynderwyns – Wairahi Trust Ngāti Kuri – Far North
Management Plan	
Management Plans	Complete management plans for 100% of new positive sites sampled this financial year. Complete minimum of 50% undetected low risk sites.
Plan Auditing	Conduct auditing on implementation of plan in accordance with new NPMP rules
Community Group Trapping Management Plans	In conjunction with our Pest Animal Control team develop policies or management plans for community pest control groups and trappers
Track Upgrade	
Track Upgrade Work	Complete one track upgrade project using external funding. Seek public walking tracks on mana whenua rohe as first option. Engineer to Contract for Rāwhiti Track Upgrade

	Complete Upper Puketotara Track outside of KDTM Project to be completed
	Section of track at Maungaturoto to be completed
	Kauri Mountain track maintenance to be completed
	Kaiwaka domain platform completion
Fencing	
Fencing	Protect a minimum of 50 hectares of private forest block containing kauri using external funding. Cover over multiple properties using criteria and minimum standard
Currently underway or complete	<p>Fencing Projects 2023</p> <ul style="list-style-type: none"> • Waipū – Brookview Heights • Ody Rd – Whangarei Heads • Ngunguru Ford Rd – Kiripaka • Kaiwaka Domain – Kauri Grove • Parekura Bay – Russell (Completed) <p>Several other sites are being investigated and the total area protected thus far exceeds 50 hectares.</p>
Vector Control Wild Animal – KP and Incursions Teams	
Pig and goat control various	Various pig and goat control projects. Currently 1 goat cull planned for Kaiwaka area.
Currently underway	<ul style="list-style-type: none"> • Kaiwaka – Mountain Rd -goat control in kauri vulnerable private land- Ongoing • Russell forest- assistance with sika deer control
Russel Forest Deer Eradication – Incursions Team	
Deer eradication	Continuation of the goat control and deer eradication in Russel Forest. Carry over budget from last financial year
Bicultural Collaborations	
Soil sampling	Training local kaitiaki
Track Upgrade	Upgrade public track on iwi/hapū land
Clean Card Workshop	Delivering workshops with iwi/hapū
Education visits	Delivering school education to iwi/hapū schools and working with Kauri Ora entities across Te Tai Tokerau.

Ngā tapirihanga / Attachments

Nil

TITLE: **Predator Control and Weed Action Groups Update**

From: Joanna Barr, Biosecurity Manager Pest Plants and Kathryn Lister, Biosecurity Partnerships Manager

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

Whakarāpopototanga / Executive summary

In addition to the regulatory work undertaken directly by council staff to prevent the establishment and spread of low incidence species in Northland, council also has a number of non-regulatory programmes aimed at reducing the impacts of pest species that are already well established or widespread. A significant proportion of this work is focused on supporting community-led pest control activities that protect biodiversity and landscape values.

This partnership work raises community awareness and understanding of the threats posed by pest species, encourages involvement, and removes barriers to action through advice and funding support. These programmes include 'Biofund', 'Community Pest Control Areas' (CPCAs), 'High Value Areas' (HVAs), and larger scale partnerships, such as between NRC and Kiwi Coast. This report summarises our work across predator and weed control groups and provides some examples of the results the work is achieving for our environment as well as for the wellbeing of our communities.

Recent key achievements across these programmes are detailed in the [Annual Report on the 2021-2022 Operational Plan](#). Since July 2022, additional accomplishments of note include the successful Parihaka 'Bioblitz' in November 2022 (a collaborative project to undertake an intensive environmental survey to provide a snapshot of biodiversity in Parihaka Reserve), and two new CPCAs, including the first to explore community-led pest control within a marine environment – the Takahiwai Mātatai CPCA on the Whangārei Harbour.

Northland communities have been highly engaged in accessing support and initiating pest animal control projects in particular, and more recently we have seen more of these communities wanting to include weeds as targets in their pest control work. Encouraging and supporting action on pest plants continues to be a key focus for the Northland Regional Council (NRC), with considerable growth seen in the number of weed action groups delivering targeted weed management and restoration at key sites. While it is often more difficult and complex work for communities, there is a real need to continue to encourage and grow community action on pest plants because of the significant and growing weed burden Te Tai Tokerau is facing to control.

Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information contained in this report
-

Background/Tuhinga

One of the ways council achieves practical pest management is by supporting community-led pest control activities through a non-regulatory partnership-based approach. Biodiversity restoration projects controlling pest animals and pest plants are generally managed through the following funds/programmes:

- Biofund (Environment Fund): Small management agreements arising from applications to establish small scale pest control projects, usually with an individual landowner. Primarily these agreements provide for pest control equipment, but more recently we have trialled providing some contract support for weed control work to assist landowners with knockdown work, as this often seems to be the biggest barrier to sustaining action for larger properties.
-

- 88 Biofunds were administered in the last financial year (21/22); 7 of these had a pest plant component.
- Community Pest Control Areas (CPCA): A way of assisting communities to manage pests on a larger scale, usually across a number of properties. These agreements are usually with a group of motivated landowners who are working toward the same pest control goals. Again, we have more recently trialled a slightly different model for weed control focused CPCA, as it can be very difficult for applicants to get commitments for weed control work from adjacent landowners. This model involves more resource for landowner education, training and follow up, to foster long-term buy in to weed control maintenance work. Landowners are required to commit to a 50:50 commitment to the initial knock down work and the ongoing maintenance.
 - Four new CPCAs were added in 21/22 increasing the total area under management by over 7000 hectares, bring the total area to approximately 150,000 hectares. Since July 2022 an additional two have been initiated and others are proposed.
- High Value Areas (HVA): Specifically identified areas of Te Tai Tokerau where high biodiversity and cultural, recreational or economic values are matched with strong community commitment to leading and undertaking pest control. They allow for a more landscape scale approach and have a strong community education/ upskilling focus. The High Value Area programme model has been particularly useful for fostering action on pest plants, as it allows for more of a coordinated landscape scale approach, working to raise awareness and encourage action at a community level rather than just working with individual landowners or small groups.
 - There are currently 5 HVAs across Northland; Mid-North, Tutukākā, Whangārei Heads, Piroa-Brynderwyn and Kiwi Link, and another group of projects operating in a similar way in Western Northland, centred around the Waipoua Forest. These projects (excluding Western Northland) recorded an overall trap-catch of over 62,000 pest animals in 21/22. Three of the six projects have a strong pest plant focus.

Council also has a significant partnership agreement with the Kiwi Coast Trust to support community group projects with a specific focus on kiwi protection. Working together allows both Kiwi Coast and council to leverage further potential funding and show a strategically coordinated regional approach to community conservation. The current total number of projects linked into Kiwi Coast and involved in the collaborative initiative is 210. The collective area managed by these groups and projects increased from 225,000ha in 2021, to 241,000 ha in 2022. Monitoring results continue to demonstrate the strength of the collaborative approach, with on average ~1,900 animal pests trapped on the Kiwi Coast every week.

More recently, Council has also begun to grow our capacity to support strategic pest management across our urban spaces. Tiakina Whangārei is a community-led urban initiative helping people connect with their environment through conservation activities, while supporting existing mahi, to protect and enhance Whangārei native biodiversity. This programme continues to build momentum and has successfully secured a funded partnership with Whangārei District Council. The part time coordinator role was increased to a fulltime role in July 2022 which has allowed for an increased focus on supporting and growing pest plant action.

In addition to our programmes named above, we also sell a range of pest management traps and tools to the general public at a reduced cost. In 21/22 we supplied over 6000 traps; this figure is usually more than double that but was depressed due to the impacts of Covid.

Result and outcome monitoring

Community-led pest control is important, not only in the scale of effort and the enhanced conservation results that are able to be achieved, but because it generates pride, mana and a whole range of not easily quantifiable metrics of health, resilience and wellbeing within our communities. In addition to measuring the significant numbers of pests that are trapped each year, with countless others removed

via the prudent application of toxins, we measure action and success via a range of social and environmental metrics, including:

- Possum monitoring using either the Residual Trap Catch (RTC) or the Waxtag Index (WTI) method
- Bird counts: kiwi monitoring, pāteke flock count surveys and targeted five-minute bird counts for eight key native bird species (tui, kingfisher/kōtare, waxeye/ riroriro, kukupa, tomtit/miromiro, fantail/pīwakawaka, kākā and bellbird/korimako)
- Number of groups supported, volunteer hours and engagement events

In collaboration with NRCs Biodiversity and Policy teams, we are developing a broader strategy for outcome monitoring for community-led work to ensure that this partnership work is achieving its purpose, in order to efficiently prioritise future resources. Additional metrics we hope to embed within council and community-led programmes include:

- Photo-points for canopy health
- 5-minute bird counts across a much larger number of sites
- Tier 1 terrestrial biodiversity monitoring plots

Strategy and future direction

Because of the nature of our partnership approach, where we are working with those who are willing and able to contribute their time and energy, it is often strongly influenced by community aspirations and capacity, which can vary widely. However, we also hold a strategic view that seeks to support pest control in priority areas, link distinct projects and create continuous trapping networks across the landscape. A landscape-scale approach to predator control boosts survival of species such as kiwi, pāteke and others by providing for their safe dispersal into new areas. Individually, groups are achieving great results, but together they are achieving something truly remarkable. The success of our community-led pest management approach in Northland was a key factor in council being the successful recipient of two PF2050 funded eradication projects and continues to underpin the development of these ambitious projects.

Part of this strategic approach is to proactively encourage more pest plant focused interest and action, develop better mechanisms to support this type of work, and to grow our own internal capacity in this area. As part of this, we now have an FTE dedicated to developing pest plant-focused partnership work and are working to further upskill the wider Biosecurity team who are involved in supporting community conservation so that they can help applicants identify and prioritise weed issues on their properties and include weed work in their plans and applications.

Because of the sheer diversity and ubiquity of pest weed species, pest plant control can be a more complex and arduous undertaking, and it is often more difficult for landowners or volunteers to resource and sustain. It is likely to require slightly different models of support to achieve long term success. It is also clear that, while the link between community-led predator control protecting taonga species like kiwi has been firmly embedded into the public's understanding, there is a need to do the same for pest plant control. This requires increased focus and dedicated resources to communicate the threat effectively, as well as what can and could be achieved through a collective response. The need to significantly increase the relative importance placed on pest plant control at all levels is also reflected in the November 2021 report from the Parliamentary Commissioner for the Environment: [*Space invaders: a review of how New Zealand manages weeds that threaten native ecosystems.*](#)

Attachments/Ngā tapirihanga

Nil

TITLE: Wild Deer - Update on funding and eradication plan

From: Nicky Fitzgibbon, Biosecurity Manager - Incursions and Reponse

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

Whakarāpopototanga / Executive summary

Prior to the 1990s Northland had historically been free of wild deer populations, but deer farm escapes and ongoing illegal deer releases have resulted in many deer herds being reported around Te Taitokerau Northland. Wild deer pose a serious threat and if left uncontrolled, wild deer could spread to occupy all available habitats, damaging Te Taitokerau unique biodiversity and rural economy.

By supporting the development of a 'Te Taitokerau Northland Wild Deer Eradication Strategy', we have a unique time-bound opportunity to stop the spread of wild deer within Te Taitokerau before our ngahere (forests) and in particular unique kauri forests are destroyed. In addition, the proposed strategic pou and corresponding work streams will support cultural, economic, social, and environmental aspirations for Te Taitokerau.

A program of this size will require a significant concentrated investment of resources and partnership. We anticipate that as the program develops and evolves the workstreams and leadership may need to also evolve to align with the direction mana whenua, central government partners (DOC), council, industry and community wish to take.

Ngā mahi tūtohutia / Recommended actions

1. That the Biosecurity and Biodiversity Working Party endorse the information contained in the report and supports attachment 1 'Draft - Te Taitokerau Wild Deer Eradication Strategy' as our preferred approach to develop.
2. That the Biosecurity and Biodiversity Working Party endorse staff to present the preferred approach to future TTMAC and council workshops.
3. That the Biosecurity and Biodiversity Working Party writes a letter of support for the development of the program to the Minister of Conservation and the Director General of the Department of Conservation (DOC).

Background/Tuhinga

Current situation in Te Taitokerau

There are four species of deer known to be present in Te Taitokerau. Three species are permitted under the farming regulations (red deer, fallow deer, and wapiti), whereas sika deer are prohibited from being farmed but are present in Russell Forest as a result of illegal liberations.

There are 27 known permitted deer farms, and DOC is responsible for regulating deer farming under the Wild Animal Control Act 1977. This includes specifying the areas deer farming is allowed and the fencing requirements. There is a history among some permitted farms of poor fencing and deer escapes.

No wild deer populations were known in the Te Taitokerau region prior to the late 1980's but since then deer farm escapes and the aforementioned illegal deer releases have resulted in several wild deer herds being reported around Te Taitokerau.

To date, there are approximately 14 known locations with wild deer in the region (8 currently active and 6 historical sighting locations), spread from Kaitaia to Topuni (see appendix 1). Over 60% of these herds are the result of deer farm escapes and the remaining herds are a result of illegal deer releases, particularly sika around Russell Forest.

The Northland Regional Pest Management Strategy 2017-2027 (RPMS) objectives for feral deer are:

- To maintain low densities of feral deer in Te Taitokerau through deer farmer liaison, fence inspections, surveillance, wild deer response activities, and statutory management to prevent the successful establishment of wild deer populations.
- To increase community awareness of the risks and environmental consequences of feral deer establishing in Te Taitokerau in order to gain wide community support for the vision of no feral deer in the region.

However, despite twenty years of attention from various organisations, management of wild deer in Te Taitokerau continues to face significant challenges, including budget priority and availability, illegal releases and immigration from the Auckland region. A program restructure in 2015 led to the loss of long-established relationships between the deer response team and deer farming community causing ongoing deer farm escapes and an increase in the known wild populations around Te Taitokerau.

If these current wild herds are not removed, they will expand in both numbers and range with increasing impacts on ecosystems and the rural economy. There will come a point at which it would no longer be financially feasible for Te Taitokerau to return to a deer-free status.

A Proposed Multi-Agency Co-Governance Approach to Wild Deer Eradication

In 2022 the Government released Te Ara ki Mua, a framework to improve management of wild animals, deer, goats, feral pigs, tahr and chamois, across New Zealand along with a supporting implementation budget of \$30 million. One of the objectives of the framework is to prevent any further expansion of the range of wild deer.

While the current wild populations in Te Taitokerau remain small and discrete there is the opportunity now to access funding and develop an efficient and sustainable programme with the aim of eliminating the current populations and preventing any further establishment of wild deer into the future.

This would provide environmental benefits to unique ecosystems and the economy within Te Taitokerau. The program would establish itself as a pilot for intensive community education and engagement around the advantages to the region of being deer-free, and the impact wild deer can have.

It is envisaged that the learnings from such a program, including hunting methodologies, data capture, research and development, and communications and engagement, will be able to be used to support to objectives of Te Ara ki Mua in other locations.

Te Taitokerau Wild Deer Strategy Pre-engagement and Operational Planning

Northland Regional Council in partnership with DOC, hapū and Iwi, the deer farming Industry and Auckland Council have begun the early planning phase to develop a Te Taitokerau Deer Eradication Strategy with the vision “No Wild Deer in Te Taitokerau” (Appendix 1). It should be noted that this is a summary of the conversations so far and should not be considered the full and final proposal.

The development of any such strategy will involve an extensive and inclusive consultation process to give effect to Te Tiriti, developing better partnerships with our deer industry and farmers, community, and other stakeholders. This will deliver a program of work that is developed by the region for the region.

If the funding bid is successful, the project team would enter a period of early engagement to test-the idea of a Te Taitokerau Wild Deer Management Strategy in more detail with hapū and Iwi and other key stakeholders. This will inform further development of the proposal and provide confidence for council and the DOC that it understands the views of key parties and size and scope of the work required.

We want to be confident that:

- key stakeholders and partners understand what we are trying to achieve, how we are going to achieve it, how they may be affected and how they can contribute;

- the aspirations of hapū and Iwi and the roles they wish to play in wild deer management are understood, and that hapū and Iwi have the opportunity to participate in co-design of the Strategy and subsequent implementation plans;
- pre-engagement with partners/stakeholders has proactively identified priority areas or concerns and provided an opportunity to refine and improve aspects of the proposal; and
- is feasible and what additional funding requirements will be needed.

Formal public consultation could begin mid to late 2023. Elected members will have an opportunity to provide formal feedback prior to this via council workshops. Any initial feedback from Te Tai Tokerau Māori and Council (TTMAC) members on the Biosecurity and Biodiversity Working Party to the best approach for engagement with hapū and Iwi would be gratefully received and help build our approach.

Although this will be a challenging project, by taking a Multi-Agency Co-Governance approach to Wild Deer control it would allow us to build an effective, cost-efficient, and sustainable way of managing wild deer and provide significant benefits to the region.

Phase1. Russell Forest and Program Improvement

In the short term the team will continue with the current program of work eradicate Sika Deer from Russell Forest. A working group is being brought together to design the eradication plan, and will consist of hapū, NRC, DOC and technical experts in animal eradication programs. It is expected that this will form in March with operations beginning in earnest from October 2023.

DOC and NRC are also working collaboratively on number of process improvement to the current regulatory system. An operational plan and schedule of activities has been developed and activities are already underway. The plan includes joint (NRC and DOC) programme objectives and performance measures. These are grouped under the three key activities of Prevention, Incursion Management, and Wild Population Management. All current activities fall under one or more of the strategic pou.

Program objectives

- Prevention:
 - Prevent new incursions of deer within the Northland region through deer farm escapes.
 - Prevent new incursions of deer within the Northland region through illegal releases.
 - Prevent incursions of deer into the Northland region through natural immigration from the Auckland region.
- Incursion management:
 - Any new incursions are promptly reported to NRC within 48hrs.
 - NRC responds to incursion reports in a timely manner within 48hrs.
 - No reported incursions result in the establishment of a new wild deer population.
- Wild population management:
 - All sites with a known wild deer population of deer are under active management.
 - The number of sites with a known wild population of deer reduces over time.

The anticipated costs of implementing such a strategy

The overall current or 'status quo' levels of investment in large ungulate management activities by both Council and DOC in Te Taitokerau is approximately \$600K per annum including operational costs and FTEs. The majority of this spend currently sits with council.

The project team have begun early estimates for costs to implement a 'Te Taitokerau Wild Deer Management Strategy' (including but not limited to surveillance, monitoring, control, and enforcement, raising awareness/education) – early indications are that total costs could be ~\$11m for the first seven years of the plan. A potential breakdown of some of the likely costs of implementing

the plan is provided in Table 1. There may be a requirement for increased investment from council, but the expectation is that DOC will contribute the majority share of costs based on the priorities set out in the 2020 budget bid.

Table 1: DRAFT program costs for a Wild Animal Deer Management Strategy for Te Taitokerau

	2022-2023	2023-2024	2024-2025	2025-2026	2026-2027	2027-2028	2028-2029	Total
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Phase 1: Russell Sika Eradication and Validation	-	750,000	500,000	500,000	253,546	-	-	2,003,546
Initial Surveillance Activities (TADS)	145,113	229,567	92,847	20,623	-	-	-	488,150
Control work and Validation Activities	429,567	-	517,300	433,329	1,760,045	1,710,610	1,552,124	6,402,975
DNA Analysis and Storage	25,000	25,000	25,000	25,000	25,000	25,000	25,000	175,000
Legal Costs	15,000	15,000	15,000	15,000	15,000	15,000	15,000	105,000
Program Sundry Costs	15,000	15,000	15,000	15,000	15,000	15,000	15,000	105,000
Additional Program Staff Resourcing	230,000	230,000	230,000	230,000	230,000	230,000	230,000	1,150,000
Communications and Engagement	250,000	100,000	100,000	100,000	100,000	100,000	100,000	650,000
Northland/Auckland Buffer Zone	98,248	68,925	98,248	68,925	98,248	68,925	98,248	432,594
TOTAL SPEND	1,656,679	1,844,567	1,875,147	1,818,952	2,928,591	2,095,610	1,937,124	11,512,265

Note:

1. Cost sharing agreements are still to be negotiated and costs are not adjusted for inflation.
2. Early operational activities to support the development phase of the strategy have already been drawn down i.e., TADS.

Budget and cost information will be refined over the coming months. Surveillance work on known wild deer locations in the first half of this year will provide for a greater understanding of the true scale of the issues. It will also be adjusted to reflect Council and DOC's, hapū/lwi and the communities preferred approach to implementation and any costs associated with stand-up of a management program.

An important feature of the new strategic intent is to invest in growing our partnership with hapū and lwi supporting them as kaitiaki (guardians, caretakers) for the ngahere (forests). To provide for this the proposed future budgets will include specific allocation for roles hapū and lwi may choose to play in pathway plan implementation. The level and nature of such roles and engagement will be guided by the aspirations of the different hapū and lwi and determined through engagement within the programme. NRC is already exploring opportunities for rangitahi for work experience, gateway and careers secondary student placements through our successful enviroschools program and Project Pest Control courses. Note that in some regions hapū have previously expressed interest in participating (funded roles) in areas of activity, such as, 'advocates', 'animal control work', and 'surveillance'.

If approved a phasing-in period has been incorporated into the planning to allow time for councils Long Term Plan processes and central government budgeting processes. The intent is to develop a multi-agency agreement on funding and roles, and to have this at least agreed in principle before the proposal is formally considered by Council.

An outline of the key steps and indicative timeline is outlined below:

Proposed Timeline for Activities



Options analysis

In the short term (next 12-18 months), it is expected that a portion of the planned work programs resourcing can be met through current NRC (and DOC) FTE and existing operational budget, however there is an urgent shortfall in Communications and Engagement Support. Additional FTE and operational budget will be required to support broad consultation input into the new strategy.

The funding of this position will be part of the package put to central government.

An overview of the project assumptions and risks, resourcing requirements and a description of options are provided below:

Assumptions and Risks
<p>Assumptions</p> <ul style="list-style-type: none"> Once existing feral populations have been removed, a smaller base investment for continued management including surveillance and response, and regulatory requirements (farm permitting and inspections). There will be no further illegal liberations in Te Taitokerau. One problem deer farm per year is resolved. Most of Te Taitokerau hapu/Iwi, farmers, landowners and community are supportive. Other stakeholders will come on board as the program develops; deer industry, forestry, MPI, private land, sponsored investment. <p>Risks</p> <ul style="list-style-type: none"> Securing adequate resourcing (FTE and Budget) within both NRC and DOC The funds set aside under the budget bid are reprioritised to other areas of work Consultation and regulation fatigue due to several regional and national initiatives i.e., treaty settlement process, Regional Pest Management Plan Review, new water regulations, agricultural emissions etc. Deer could be illegally liberated anywhere in Northland. Farm compliance is problematic and ends up in court WAC Act. Landowner access could be problematic and slow progress and enforcement is required or ends up in court.

Options		
	Pros	Cons
<p>A Te Taitokerau strategy - Deliver a complete deer eradication strategy for Te Taitokerau with full consultation.</p>	<ul style="list-style-type: none"> • Give effect to Te Tiriti and Tāiki ē. • Act in accordance with our obligations under the NRC RPMP and DOC's Northland Conservation Management Strategy (CMS), and supports the outcomes of other NRC and DOC programs; Kauri Ora, PF250 and DOC's Te ara ki mua (Wild animal management framework). • Develop better partnerships with industry and stakeholders. • Sets us up well for future with long-term costs being avoided. • Te Taitokerau is the first deer free region in New Zealand. 	<ul style="list-style-type: none"> • Significant concentrated investment of resources both (FTE and Budget).
This is our preferred and recommended Option		
<p>Continue with Russell Forest project and/or deliver eradication plans for specific prioritised areas.</p>	<ul style="list-style-type: none"> • Localised site-based eradication. • Smaller financial cost. 	<ul style="list-style-type: none"> • Missed opportunity to consider primary sector interests and for improved partnerships and delivery. • Wider eradication not achieved and therefore continued ongoing and increasing costs to manage remaining wild deer populations.
<p>Do nothing and maintain the status quo.</p>	<ul style="list-style-type: none"> • No immediate additional cost pressure to budget. 	<ul style="list-style-type: none"> • The region misses all opportunities to eradicate wild deer and they become a significant impact on Te Taitokerau biodiversity. • Control costs continue to increase. • Missed opportunity to consider primary sector interests and for improved partnerships and delivery.

Next steps

- Staff from NRC and DOC will finalise a proposed program of work to support the develop a Te Taitokerau Northland deer strategy for the subsequent discussions with DOC senior leadership on funding under the budget bid to operationalise the Te ara ki mua (Wild Animal Management Framework).
 - Once the proposed plan has been fully drafted, implementation cost estimates can be finalised. At that stage, council will be able to understand in more depth the proposed approach and whether there is a case to consider additional funding implications.
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Ngā tapirihanga / Attachments

Attachment 1: Draft - Te Taitokerau Wild Deer Eradication Strategy [↓](#) 

