Biosecurity and Biodiversity Working Party

Wednesday 31 August 2022 at 1:00 pm

AGENDA

Northland REGIONAL COUNCIL
Te Kaunihera ā rohe o Te Taitokerau

Biosecurity and Biodiversity Working Party Agenda

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

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 Craw

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

KARAKIA

RĪMITI (ITEM) **Page**

1.0 NGĀ MAHI WHAKAPAI/HOUSEKEEPING

2.0 NGĀ WHAKAPAHĀ/APOLOGIES

3.0 NGĀ WHAKAPUAKANGA/DECLARATIONS OF CONFLICTS OF INTEREST

4.0 REPORTS

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!

TITLE:	**Record of Actions – 25 May 2022**
From:	Mandy Tepania, Biosecurity PA/Team Admin
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 23 August 2022

Whakarāpopototanga / Executive summary

The purpose of this report is to present the Record of Actions of the last meeting (attached) held on 25 May 2022 for review by the meeting.

Attachments/Ngā tapirihanga

Attachment 1: Record of Actions - 25 May 2022

Biosecurity and Biodiversity Working Party
25 May 2022

Biosecurity and Biodiversity Working Party Record of Actions

Meeting held in the Council Chamber
36 Water Street, Whangārei
on Wednesday 25 May 2022, commencing at 1.00pm

Tuhinga/Present:

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

I Tae Mai/In Attendance:

Full Meeting
NRC Chief Executive Officer
Pou Tiaki Taiao - GM Environmental Services
NRC Biosecurity Manager
NRC Biodiversity Manager
NRC Biosecurity Manager - Marine
NRC Biosecurity Manager – Incursions & Response
NRC Biosecurity Manager – Partnerships
NRC Biosecurity Manager – Pest Plants
NRC Biosecurity Specialist – Predator Free Operations Lead
NRC Biosecurity Specialist – Kauri Boardwalks Project Lead
NRC Biosecurity Project Lead – Feral Deer
NRC Biodiversity Specialist – Freshwater
NRC Biodiversity Coast Care Co-ordinator
NRC PA – Biosecurity Services

Part Meeting
Councillor Justin Blaikie
Alastair Wells – Commodore – Kerikeri Cruising Club

The meeting commenced at 1:05 pm.

Ngā Mahi Whakapai/Housekeeping (Item 1.0)

Ngā Whakapahā/Apologies (Item 2.0)

TTMAC representative Georgina Connelly
TTMAC representative Juliane Chetham
TTMAC representative Nora Rameka
Pou Tātaki GM – Kaipara Moana Remediation - Justine Daw

Biosecurity and Biodiversity Working Party
25 May 2022

Record of Actions – 23 February 2022 (Item 4.1)

Presented by: PA – Biosecurity Services

Agreed action points:

- No actions required

Receipt of Action Sheet - 23 February 2022 (Item 4.2)

Presented by: PA – Biosecurity Services

Agreed action points:

- All actions marked as complete

A report concerning tangata whenua involvement in PF2050 (Item 4.3)

Presented by: NRC Biosecurity Manager

Agreed action points:

- Confirmed receipt of information, page 13 – He Unaunahi o Te Ika Nui a Māui Report Final
- Confirmed receipt of information, page 49 – Heī Tapiri He Unaunahi o Te Ika Nui a Māui Addendum

Biosecurity Operational Plan (Item 4.4)

Presented by: NRC Biosecurity Manager

Agreed action points:

- 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, page 51 – report received
- 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, page 51 – recommendation supported

PF2050 Progress Update (Item 4.5)

Presented by: NRC Biosecurity Specialist - Predator Free Operations Lead

Agreed action points:

- That the working party note the information, page 80 – item noted
- That staff update with further progress at the next working party meeting, page 80 – recommendation supported

Biosecurity and Biodiversity Working Party
25 May 2022

Feral Deer (Item 4.6)

Presented by: NRC Biosecurity Manager – Incursions and Response

Agreed action points:

- That the working party note the information contained in the report, page 82 – item noted
- Staff to update on further progress at a future working party meeting, page 82 – recommendation supported

Progress on Road and Rail Plans with Agencies (Item 4.7)

Presented by: NRC Biosecurity Manager – Pest Plants

Agreed action points:

- Working party note the content of this report, page 100 – report noted
- Working party support the planned actions, page 100 – recommendation supported

Kauri Protection and recent Biosecurity and Biodiversity incidents (Item 4.8)

Presented by: NRC Biosecurity Specialist – Kauri Boardwalks Project Lead

Agreed action points:

- Verbal report – staff to provide an update at the next working party

FIF Dune Lakes programme and herbicide update (Item 4.9)

Presented by: NRC Biodiversity Specialist - Freshwater

Agreed action points:

- FIF Dune Lakes programme and herbicide update, page 104 – report received
- Staff report back on the outcomes from this next visit to the vegetation plots in six months' time, page 104 – recommendation supported

Update on Coast Care and dune monitoring programmes (Item 4.10)

Presented by: NRC Biodiversity Coast Care Co-ordinator

Agreed action points:

- Update on Coast Care and dune monitoring programmes, page 117 – report received

Biosecurity and Biodiversity Working Party
25 May 2022

Update on Internal Biodiversity Strategy and Biodiversity Annual Report (Item 4.11)

Presented by: NRC Biodiversity Manager

Agreed action points:

- 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, page 122- recommendation supported
- 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, page 122 – item noted and recommendation supported

Biosecurity Marine Concerns - Alastair Wells (Item 4.12)

Presented by: Alastair Wells – Commodore – Kerikeri Cruising Club

Agreed action points:

- Supplementary Report – minutes and concerns raised on behalf of Kerikeri Cruising Club
- NRC Biosecurity Manager to meet with members and work through the concerns raised and report back at the next working party meeting

Whakamutunga (Conclusion)

The meeting concluded at 3:10 pm.

TITLE:	**Receipt of Action Sheet - 25 May 2022**
From:	Mandy Tepania, Biosecurity PA/Team Admin
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 23 August 2022

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 Action Sheet - 25 May 2022 ⇩

Biosecurity and Biodiversity Working Party – Schedule of Actions

Meeting date	Item	BABWP action	Responsible staff	Status	Notes
25 May 2022	Biosecurity Operational Plan (item 4.4)	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, June council meeting	Don McKenzie	complete	Operational plan approved
25 May 2022	PF2050 Progress Update (item 4.5)	PF2050 progress update report for the next Biosecurity & Biodiversity working party meeting	Sam Johnson	complete	Refer agenda item
25 May 2022	Feral Deer (Item 4.6)	Feral Deer progress update report for the next Biosecurity & Biodiversity working party meeting	Don McKenzie/ Grant McPherson	complete	Refer agenda item
25 May 2022	Kauri Protection (item 4.8)	Kauri Protection progress update report for the next Biosecurity & Biodiversity working party meeting	Don McKenzie	complete	Refer agenda item
25 May 2022	FIF Dune Lakes Programme and herbicide update (4.9)	FIF Dune Lakes programme and herbicide update Staff report back on the outcomes from this next visit to the vegetation plots in six months' time	Lisa Forest/ Jackie Byrd	Complete	Refer agenda item
25 May 2022	Biodiversity Annual Report (item 4.11)	Biodiversity Annual Report highlighting council biodiversity activities and achievements for 2021-2022 financial year.	Lisa Forester	Work in progress	Staff continue to work on the report with the timing of delivery intended to support SOE reporting.

25 May 2022	Biosecurity Marine Concerns – Alastair Wells (item 4.12)	NRC Biosecurity Manager to meet with members at the Kerikeri Cruising Club and work through the concerns raised and report back at the next working party meeting	Don McKenzie/ Kaeden Leonard	Deferred	The club president has requested a workshop with a wide number of council and agency representatives however the timing of this is yet to be confirmed and is expected to be confirmed for later in the year

TITLE: PF2050 Update and Emerging Issues

From: Sam Johnson, Biosecurity Manager - Predator Free; Vivienne Lepper, Whangarei Predator Free Manager and Joanne Kim, Communications & Engagement Coordinator Predator Free

Authorised by Group Manager/s: Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 22 August 2022

Whakarāpopototanga / Executive summary

Progress has been steady for both projects in Whangārei and Pēwhairangi Whānui. In Whangārei, the field team have been working consistently over the wet weather and now have coverage from Bream Head – Te Whara up to Taurikura.

In Pēwhairangi Whānui or the Bay of islands work is underway with respective hapū across three peninsulas to complete the eradication plans and boost current pest control initiatives.

It is also noteworthy that that Rob Forlong has been appointed as the new CEO for Predator Free 2050 who was the previous CE for Whangārei District Council and who will be based in Whangarei.

Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information provided
2. That further progress updates will follow at the next working party meeting

Background/Tuhinga

Pēwhairangi Whānui (Bay of Islands)

We are pleased to announce the appointment of our PF2050 Pēwhairangi Whānui Manager, Maaka McKinney, who has helped facilitate the progression of each peninsula's eradication plan. The desire for each peninsula to carry out their own eradication plans individually has been acknowledged, which has led to the establishment of three projects:

Pest control efforts are already underway in each peninsula and short form contracts have been established for an interim period as we work through completion of each peninsula's eradication plans. For Pēwhairangi Whānui, multiple hui were held for each peninsula to help establish a co-governance structure and renew each project's contract.

Three projects are underway in Pēwhairangi Whānui and include Kororāreka PF2050 – led by the Russell Landcare Trust, Rakaumangamanga PF2050 – Rawhiti 3B2 Ahu Whenua Trust and Purerua PF2050 – Ngāti Rēhia, Ngāti Torēhina/Kiwi Coast

Kororāreka PF2050 (Russell Landcare Trust)

- Russell Landcare Trust continues to develop their eradication plan.
- Time was put into leading hui with hapori and mana whenua about governance partnership objectives and to explore how this structure will function. Key objectives are:
    - Exploring how obligations of Te Tiriti are achieved for project partnership
    - Achieving the right people at the governance table
    - Agreement of clear project objectives and priorities
    - Aligning operational delivery with project objectives as listed in the eradication plan
    - Mana whenua, Kaunihera and haapori having shared input and interest in the project

Rakaumangamanga PF2050 (Rawhiti 3B2 Ahu Whenua Trust)

- Continued support of Rawhiti 3B2 Trust with the development of their eradication plan
- Input from local trappers has been of huge value with regards to how the eradication is being shaped
- Rawhiti 3B2 Ahu Whenua Trust has been awarded a $200,000 grant from the Ministry of Primary Industries to support their Biosecurity and Kauri Ora projects
- $200,000 of funding has also received from Ngā Whenua Rahui to continue maintenance and operations of existing bait stations

Purerua PF2050 (Ngāti Rēhia, Ngāti Torēhina, Kiwi Coast)

- Conducted a hui kōrero with all project partners and reviewed the kaupapa of Predator Free, and objectives of the Governance Partnership group
- Ngāti Rēhia are developing their hapū plan in support of the wider peninsula eradication plan
- Ngāti Torēhina and Kiwi Coast Trust will be working collaboratively to develop the wider peninsula eradication plan

Eradication Plans will include:

- Aspirations and objectives
- Environmental and Social benefits
- Scope of the programme – what we currently must work in respect of budget constraints

Hui kōrero about appropriate the governance partnership structure will continue with key objectives being:

- Te Tiriti obligations being achieved for project partnership
- Ensuring the right people are around the table
- Project objectives and priorities are agreed and clear
- Operational delivery aligns with project objectives
- Mana whenua, kaunihera and haapori have shared input and interest in the project

Whangārei Project

The Whangarei predator Free website is now operational and is a way of sharing stories and progress with the community. www. https://www.predatorfreewhangarei.nz/

Since going ‘live’ with the eradication devices, which means activating toxin stations and kill traps, steady progress has been made on the ground and areas divided into different blocks. Each block has different objectives identified for possum eradication based on a combination of previous conservation efforts that have occurred over the last two decades and the landscapes involved.

In working block 1 in the map below, the 'knockdown' phase is complete and the 'mop up' phase has begun. Working block 2a will also begin a 'mop up' phase. The remainder of block 2 has all infrastructure installed and all the devices are live.

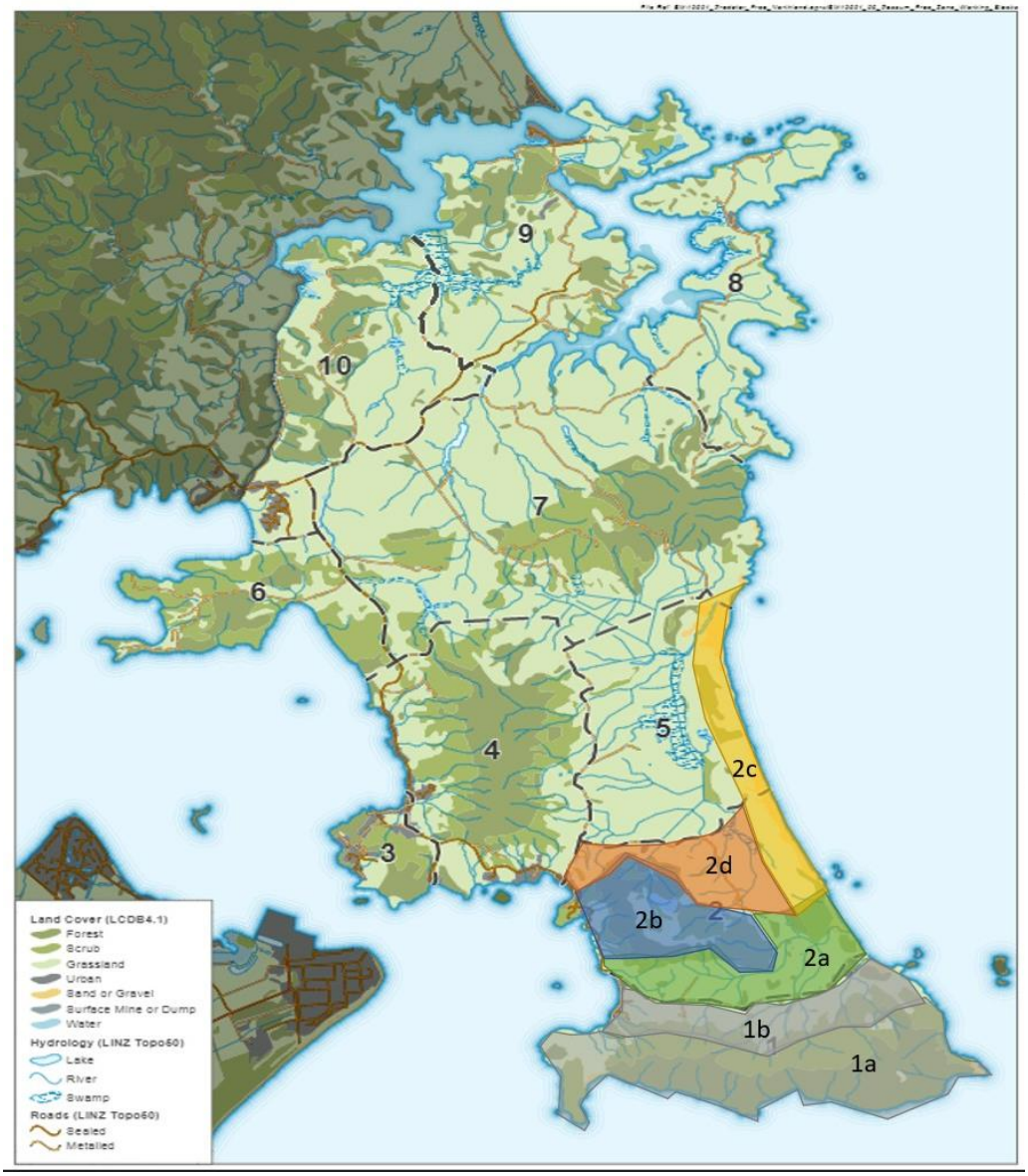
Current Device Network:

- 242 kill traps
- 255 bait stations
- 139kg toxin, 1,700 bait station checks

There has been a lot of bait take (139kg,) which corresponds to high winter rodent activity and 17 possums caught so far. Recent trail camera footage captured a pair of kōrora (penguin) from Bream Head/Te Whara and other cameras have picked up kiwi and other birds.

Progress has also been made on the development of a plan to involve Aki Tai Here – a local kaimahi group in the eradication project. Whilst they do not represent hapū/whanau/iwi, they are a whakapapa-based group that will initially take on eradication work within their rohe of Pataua South and Taiharuru. As their capacity builds it is hoped they will be more involved in wider on the ground delivery.

Steps are underway to connect with the kaumatua of the hapū o Manaia maunga with the intention of discussing the appropriate tikanga for the eradication work which is scheduled for this area to begin later in the year.


9
8
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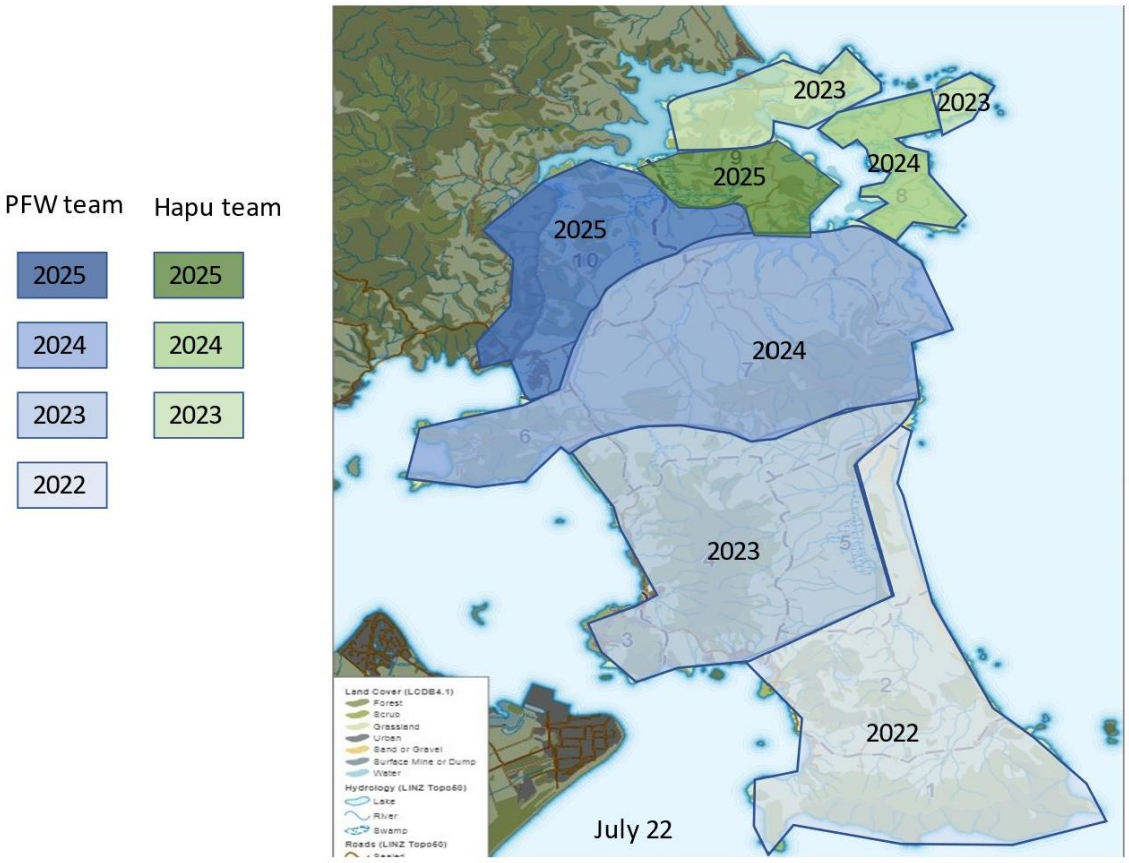
Land Cover (LCDB4.1)
Forest
Scrub
Grassland
Urban
Sand or Gravel
Surface Mine or Dump
Water
Hydrology (LINZ Topo50)
Lake
River
Swamp
Roads (LINZ Topo50)
Sealed
Metalled



Ngā tapirihanga / Attachments

Nil

TITLE:	**Feral Deer Update and Future Planning**
From:	Grant MacPherson, Biosecurity Project Lead - Feral Deer
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 22 August 2022

Whakarāpopototanga / Executive summary

The sika DNA survey in Russell Forest is proceeding and the next survey is due to begin in October. In addition, follow up work has further reduced goat populations in the area making the eradication of sika more efficient and effective.

Northland Regional Council (NRC) contractors have culled 14 deer over the last 3 months from deer farm escapes or as a result of following up on past illegal liberations. NRC and Department of Conservation (DOC) staff continue to work closely together and with other agencies to minimise the risk of deer farm escapes and to plan for the eradication of deer from northland.

Concern remains that the powers of the wild animal control act are not being utilised to their full potential and talks are continuing with DOC staff to ensure a clear process is in place when these statutory powers need to be used to enter private land to cull feral deer.

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.

Background/Tuhinga

Russell sika eradication and goat cull

Goat control work was completed in May with a further 17 Goats, 15 pigs and 1 sika stag eradicated from the Russell survey area. A DNA sample was taken and forwarded for comparison from the sika pellet samples that were analysed in the previous survey to establish if the sika that was shot was also one detected in the last survey. Landowner negotiations and planning for the full sika DNA survey is progressing well and the survey is expected to be carried out between the 10th and 20th October. Culling of sika is expected to follow at the end of this calendar year or early next year.

Escape events of farmed deer

On the 14th of June a tree came down on the boundary fence of a deer farm in the Kaiwaka area allowing more than 10 red deer to escape onto adjoining pasture adjacent to small bush blocks. Fortunately, the landowner recovered most of the herd that night and staff checked the surrounding area the next morning and located an adult stag and hind outside the deer fence. These animals were destroyed after discussing the risks with the farmer of the deer roaming and more wary.

DOC have since had a meeting with this farmer with the aim of improving his farming practices and reducing the risks of deer escape.

Other deer farm incidents since the last report include:

- An escaped red hind that had been on the loose in the Paparoa area from a nearby deer farm was culled.
- A fallow deer farm was located within the vicinity of the Waitangi Forest which had eight fallow deer however the farmer had no permit. This has been reported to DOC staff who are to investigate.
- A mature fallow hind and had previously escaped from a nearby farm in the Marua area was culled following a long period of surveillance.
- Five Red-Wapiti cross deer from a herd of eight that has escaped from a nearby farm several years ago were recently shot in the Manganui river area by council contractors. More contract time has been allocated to target the remaining animals.

Staff have been working closely with DOC to develop a standard process for dealing with non-compliant deer farms and the issue of deer farming permits. In addition a recent request made to DOC for the delegated powers of the wild animal control act has not been supported and talks are continuing to ensure there is a clear process when entry onto private land to cull deer is required.

Liberations of feral deer

Three fallow deer were shot in the Kaitaia area by NRC contractors. These deer were part of scattered herd and previous sightings dating back to 2020 from an illegal liberation at that time.

In another incident a mature fallow hind and spiker were culled in the Puhipuhi area by an NRC contractor. These deer were located by one of our new contractors who knows this area well and is in close contact with landowners who reported the sighting.

Staff attended a multi-agency meeting with Auckland Council, DOC Wild Animal Management staff and are also in talks with DOC planning staff on developing a northland deer eradication plan.

Work is further ahead than expected on a purpose designed GIS system for the feral deer programme in northland. The software will include very specific reporting requirements and the ability to capture data and report on trends that can assist management.

Ngā tapirihanga / Attachments

Nil

TITLE:	**Marine Biosecurity Update on the Clean Hull Plan and Emerging Partnerships**
From:	Kaeden Leonard, Acting Biosecurity Manager - Marine
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 22 August 2022

Whakarāpopototanga / Executive summary

Purpose

To provide an update on the marine biosecurity team, the combined Biosecurity New Zealand (BNZ) and Northland Regional Council (NRC) *Sabella* (fanworm) response in Ōpua and the development of the national "Clean Hull Plan".

Multiple diver searches around the Ōpua facilities found fanworm in moderate numbers and the majority juvenile and unable to reproduce. Mature individuals were removed before they spawned. The Cawthron institute have also been funded to test additional eradication techniques for fanworm at Ōpua.

The Clean Hull Plan is aimed at achieving cleaner fleet of recreational and commercial vessels throughout New Zealand and is expected to be released for public comment later this year.

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.

Background/Tuhinga

Marine biosecurity team
The marine biosecurity team have welcomed two new staff to the team this month. New staff members bring a wealth of operational experience to the team and enhance our capacity to conduct subtidal and scuba work inhouse. All members of the marine biosecurity team hold formal scientific diver training with combined experience of ~ 2000 scientific dives, predominantly undertaking biosecurity monitoring and surveillance.

Ōpua Fanworm (Sabella) response
This year has seen divers conduct two large search and destroy surveys in and around the Ōpua basin. Divers have successfully combed the sea floor covering the whole marina footprint, all marina and surrounding artificial structures, and all mooring blocks within the Ōpua basin, Russell and Paihia areas. the first round of diving Feb-March (39 days diving) resulting in the detection and removal of 5410 individual Sabella (fig 1). Encouraging, from this cohort 68% were immature and had not attained a size which is reproductively viable. The second round conducted in June (21 days diving) saw 1360 Sabella removed of which 79% were juvenile and had not yet reach sexual maturity. Additionally, histological analysis on a subset of the remaining individuals revealed that the timing of our diving operations corresponded with critical reproductive timing of this species meaning they were removed prior to spawning. Further to the work NRC and BNZ are doing, the

Cawthron Institute, supported by NRC have secured $650,000 over the next 4 years to identify and test, control and eradication techniques for marine pests. Researchers aim to trial new techniques in Ōpua such as encapsulating technologies that will compliment NRC on-going practical efforts.

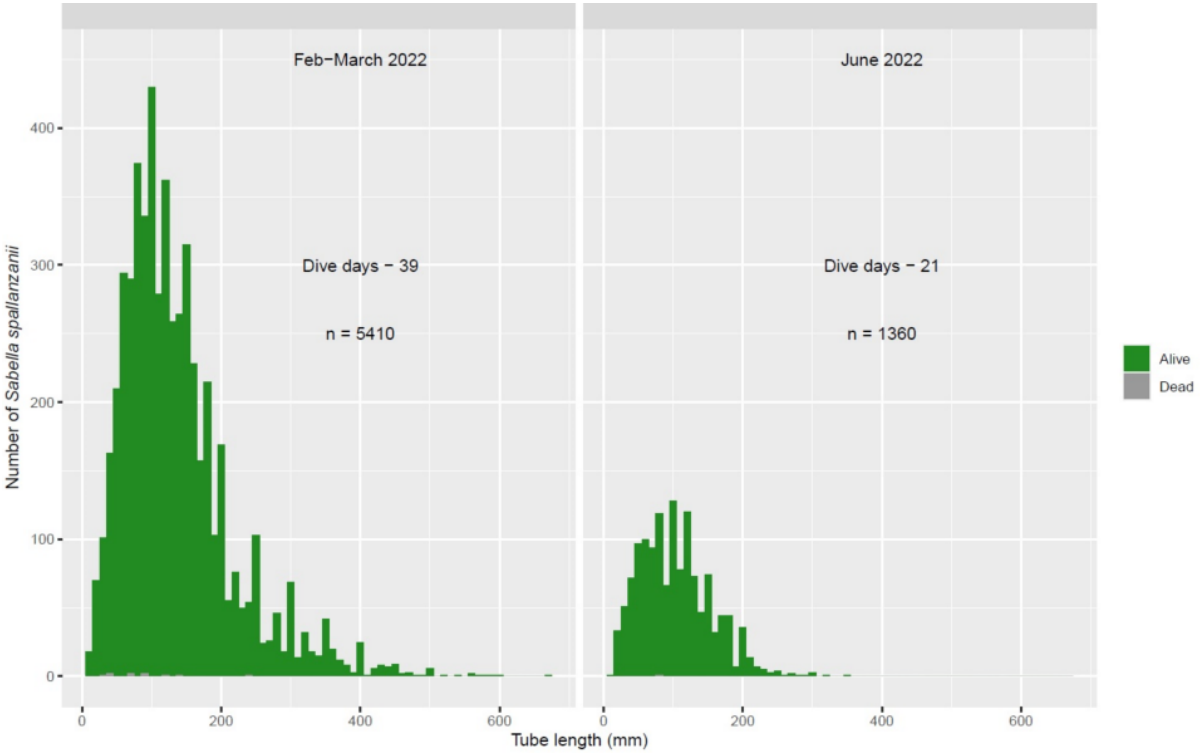


Figure 1. Size frequency histogram of all *Sabella spallanzanii* removed during the last two rounds of diving.

The Clean Hull Plan

In 2019, the "Top of the North" (TON) councils comprising Northland, Auckland, Waikato and Bay of Plenty, consulted the public on a consistent approach to hull fouling rules under the Biosecurity Act, in the form of a consistent Regional Pathway Management Plan to be adopted by each of the four regions. Following positive public feedback, all four councils endorsed staff to collaborate on the development of such a plan.

In the first half of 2021, staff from the councils and central government agencies (DOC and MPI) tested proposed content with elected members, mana whenua and key stakeholders. Overall, there is strong support for the plan. However, a consistent theme in the feedback was a preference for a national plan rather than four aligned regional plans as this would provide the greatest level of protection.

The minister for biosecurity has indicated a willingness to adopt a single 'national' plan. This would provide more comprehensive management of marine pest spread among regions. It 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 pathway plan is an instrument under the Biosecurity Act. Despite the name, 'national' pathway plans can be applied at smaller spatial scales but are adopted by central rather than local government. In the mid- to long-term, the intent is for the national plan to be truly national in scale, and engagement with other regions is already underway. However, as an interim step, it is proposed to consult on a national pathway plan that applies only to the Top of the North regions.

Staff from the six agencies have drafted the proposed plan, and an analysis of benefits and costs. A multi-agency management agreement has also been agreed upon setting out roles and responsibilities for governance and implementation. In addition, the TON collaboration have created numerous implementation tools including a Level of Fouling (LoF) software application (App), electronic guidance manual, and training workshop to train and assist regional and unitary councils to apply LOF ranking scale, enabling consistency to how we assess the biofouling risk associated with our vessel fleets. Additionally, TON has created a marine vessel portal (MVP) that will facilitate data collection by users, stakeholders, and partner councils. The MVP is a centralised vessel database that will be crucial to the implementation of the Clean Hull Plan by mapping and recording vessels moving between regional boundaries and allowing members of the public and marinas to access certain information about their vessel or vessels entering their facilities.

Formal public consultation for the national plan is expected to occur this year. Elected members will have an opportunity to provide formal feedback at this stage, alongside public consultation.
An additional upcoming body of work from the Ministry for Primary Industries (MPI) is a programme to create an approach to reach a future state of biosecurity best practice for the aquaculture industry. This includes developing processes, pathways, and timeframes for practical, implementable, and technically appropriate steps, to best practice biosecurity by 2025 and beyond. The work includes five workstreams identified by MPI and aquaculture, with the Clean Hull programme is the second workstream.

Ngā tapirihanga / Attachments

Nil

TITLE: FIF Update on Project Progress and EPA Investigation

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

Authorised by Group Manager/s: Ruben Wylie, Pou Tiaki Taiao – Group Manager Environmental Services, on 22 August 2022

Whakarāpopototanga / Executive summary

A summary of actions undertaken over the last 14 months as part of the Freshwater Improvement Fund (FIF) Dune Lake project is provided below including planned actions for the remainder of the project.

Ngā mahi tūtohutia / Recommended actions

That the report Freshwater Improvement Fund Dune Lake Update is received and further working party updates are provided as the programme proceeds.

Background/Tuhinga

The FIF Dune Lake project is a $1.5 million project co-funded by Ministry for the Environment (MfE). The project is in the 6th year and due to finish in March 2023. Workstreams, outputs and planned actions are described in the table below. Covid delayed some work over the last year and remains a risk for year 6.

Workstream	July 2021-August 2023	Planned actions
Pest fish control and grass carp removal	Staff shortages disrupted the fish programme but are now resolved. Biodiversity and Biosecurity staff are working collaboratively to achieve performance measures. 117 tench were removed from Lake Kapoai in May. After previous rudd removal by DOC and NRC, surveys have failed to detect any more of these pests in Lake Rototuna so it may now be free of rudd. Grass carp were removed from Lakes Heather and Roto-otuauru (Swan) this year. Grass carp continue to challenge efforts to catch them in large numbers. eDNA samples were taken from kakahi (freshwater mussels) gut samples from Lake Rotokawau (Poutō). Kakahi are efficient water filterers and the results showed great promise in detecting a range of species. eDNA is proving a to be a good tool to detect fish in lakes.	A full programme of pest fishing is planned for Year 6. Monitoring for rudd will continue at Lake Rototuna. Grass carp removal will continue in three lakes in year 6. An automatic feeder is being developed to improve catch rates. The single old carp that survives in Lake Waingata (Poutō) is not worth the effort to catch. Further eDNA sampling will be done in lakes this year.

Aquatic weed control	Three dune lakes (Lakes Tūtaki, Egg and Mt Camel North) and associated ponds and wetlands have been treated to control hornwort this year with ¼ lake treatments of Reglone (diquat) to achieve bulk removal followed by aerially applied Aquathol K (Endothall) to achieve eradication. The work is progressing well with possible eradication achieved in Lake Tūtaki (Poutō) after just one aquathol application. On 12th August 2022 NIWA divers failed to detect any hornwort or egeria despite around two hours of intensive searching by snorkel, sonar, and bottom rake sampling. Native submerged plants are starting to regrow. NIWA has recommended further intensive searches for hornwort fragments on scuba, and this is currently being organised. The Environmental Protection Agency (EPA) are currently investigating accidental damage to wetland vegetation during the hornwort control operation under the RMA 1991 as well as Council's compliance with EPA controls under the Hazardous Substances and New Organisms Act (HSNO Act). Two pairs of wetland plots were set up in sprayed and non- treated parts of the wetland at Tūtaki to track vegetation recovery/non-recovery post treatment. These plots were remeasured in early August 2022; nearly all species were resprouting with no significant difference between dieback in treated vs non treated plots. It therefore appears that these areas will recover over this growing season. Lake Ngatu was treated with Aquathol K in September 2020 to eradicate African oxygen weed *(Lagarosiphon major).* Three post operation snorkel surveys, and one full LakeSPI assessment have since been undertaken as part of EPA monitoring requirements. Despite searching areas where the plant had been dense, no sign of oxygen weed has been seen since the lake was treated. The last search was done by NIWA on 9th August 2022. Eradication can only be declared, if after 5 years of monitoring (i.e., September 2025), no oxygen weed is found.	Further hornwort treatments at Poutō and Mt camel are planned over the next few months A fifth lake (Lake Karaka) has been added to the Year 6 work plan. As only 1/4 lake treatments can be done at one time this might mean up to three treatments at each lake (possibly 15 more in total). More Aquathol K herbicide has been ordered and is stored at a registered facility in Auckland. Monitoring of all treated lakes and follow up treatment if required, is planned. Further survey and surveillance will be undertaken in Lake Ngatu by NIWA divers during lakes survey week in autumn 2023 as part of EPA monitoring requirements. An attempt to hand weed the small amount of egeria in Lake Rotokawau (Poutō) will be undertaken by contract divers in spring.
Sediment and nutrient mitigation	A contract is in place for a feasibility study, engineering plans, resource consent planning and project management for sediment mitigation at Lake Waikare - Kai Iwi Lakes. The small section of fence due to be replaced at Lake Ngatu could not be completed due to difficulty gaining agreement with the	Waikare sediment mitigation project to be undertaken.

	landowner so the funding was used to complete a fence at Lake Gem nearby.	
Mātauranga Māori	Around 40 tāngata whenua from eight iwi and hapū, and NRC Biodiversity staff gathered at Lake Waikere for a 3-day wānanga hosted by Te Roroa. Topics such as partnerships and iwi aspirations were discussed, and practical skills were shared. Hapū were asked how NRC could contribute to their mahi and the resounding theme was tino rangatiratanga, ultimately for iwi to plan, decide and deliver with support from agencies. Other requests were for more wānanga, training and working towards true partnership. All participants felt the wānanga was an excellent starting point and looked forward to what could be achieved in the future. Several workshops were held including a night snorkel for around 20 people. Key lakes scientists gave talks as requested and a field trip to showcase the Poutō dune lakes was hosted by Te Uri o Hau.	A longer marae-based wānanga in Te Hiku is being planned
Education	130 students from more than 14 schools attended three dune lakes education days at Lakes Waiporohita, Waimimiha and Rotokawau (Poutō).	Two more dune lakes education events are planned for year 6

Ngā tapirihanga / Attachments

Nil

Participants at Ngā Roto Tapokapoka Tūhono Wānanga – Te Roroa rohe, Lake Waikare

TITLE:	**Wetland Project Update**
From:	Lisa Forester, Biodiversity Manager and Katrina Hansen, Biodiversity Advisor
Authorised by Group Manager/s:	Ruben Wylie, Pou Tiaki Taiao – Group Manager Environmental Services, on 22 August 2022

Whakarāpopototanga / Executive summary

Council delivers wetland work across several departments. An up-date is provided on the following wetland work streams:

Ngā mahi tūtohutia / Recommended actions

1.

Background/Tuhinga

Introduction

Northland currently has more than 1,000 recorded wetlands, estimated to cover an area of 14,290 ha., which is only about 3.2% of the historic extent (Clarkson and Price, 2021[1]). Nearly 20% of Northland's land area historically was wetland, covering 286,550 ha. The 97% wetland loss in Northland is disproportionally higher than the national average loss of 90% (Ausseil et al., 2008) and there are indications wetland loss is continuing.

Policy and planning

In September 2020, the Government released its Essential Freshwater Package, which includes the National Policy Statement for Freshwater Management (NPS-FM), the National Environmental Standards for Freshwater (NES-F) and Stock Exclusion Regulations. This package provides an increased emphasis on the identification, monitoring, and protection of our wetlands by requiring 'no further loss of extent of natural inland wetlands, their values are protected, and their restoration is promoted' (NPS-FM Policy 6).

The NPS-FM requires councils to map and maintain an inventory on wetlands and to develop and implement a wetland monitoring plan. In addition, under the 'integrated management' approach required by the NPS-FM, the management of our wetlands need to be considered in the context of their interconnectedness with other waterbodies and the wider catchment environment that they reside in.

A gap analysis of council's freshwater programmes, including wetlands, was completed by Council staff in 2021. The analysis compared council's existing monitoring programmes with NPS-FM requirements and recommended continuing with the existing wetland outcome monitoring programme, obtaining up-to-date accurate maps of wetlands in Northland, developing an environmental wetland monitoring programme and increasing wetland compliance.

NRC is in the process of undertaking a freshwater plan change to give effect to the NPS-FM. This process provides the opportunity for tangata whenua and communities to have a say on the future of their freshwater resources, including our wetlands. There is the opportunity to make submissions on the draft freshwater plan (due mid-2023) and again when the freshwater plan is publicly notified (due 2024).

[1] Clarkson, B., and Price, R. 2022. A framework for monitoring Northland wetlands. Envirolink Grant: 2205–NLRC228. Manaaki Whenua – Landcare Research. LC4180 Northland Wetland Monitoring Framework.pdf

ollaboration with KMR to map KDC and WDC catchments in 2022 and FNDC in 2023.

The project is providing:

- Northland terrestrial mapping extent
- Northland saline influence extent
- Northland KMR wetland aerial survey photo points
- An overlay that has been developed using machine learning, to identify kahikatea trees (which are a key indicator of swamp forest) on oblique imagery in Photoblique.
- GIS data overlaying wetland polygons to the wetland locations in Photoblique which will allow the validation of the wetland and its attributes.

Example of wetland polygons (blue) overlaid to wetland locations in Photoblique

This report provides a framework for monitoring the ecological state and trend of freshwater wetlands and provides a set of 61 priority sites representative of Northland wetlands from which to develop a 5-yearly rolling monitoring programme. This monitoring framework has been developed to enable NRC to monitor wetland condition and trend and to identify any losses in wetland extent or values, to give effect to the requirements under the Essential Freshwater 2020 programme (NPS-FM, NES-FW).

The set of 61 representative wetland includes all wetlands ranked in the Top 30 (of the 154 top ranked wetlands), all wetlands currently monitored in our WCI (Wetland Condition Index) programme (including smaller, lower condition wetlands), and additional wetlands monitoring by NRC and/or DOC that have unique or uncommon features, poorly represented attributes, or rare and threatened species. The framework allows for setting up an initial monitoring programme using a subset of the 61 priority wetlands as needed, and as capacity permits, building up to a full monitoring programme.

- The next steps are to:

- Refine and update information on the wetlands, particularly vegetation type areal extent, using our GIS wetlands database. This will occur over the coming year, in conjunction with updated wetland maps
- Develop and refine the monitoring methodology for monitoring wetlands, including establishing permanent vegetation plots, sampling design including replication and plot size, and overall condition assessment.

Wetland monitoring methodology – NEMS (National Environmental Monitoring Standards)

[1] Clarkson, B., and Price, R. 2022. A framework for monitoring Northland wetlands. Envirolink Grant: 2205–NLRC228. Manaaki Whenua – Landcare Research. LC4180 Northland Wetland Monitoring Framework.pdf

The set of WCI wetlands are incorporated into the wetland environmental monitoring network.

The top wetland project, which commenced in 2009 with the development of a ranking system for Northland's wetlands (by Wildland Consultants[2]), has ranked 304 wetlands. The aim of the project was to progress the protection of the top 154 wetlands (scoring 50 or higher out of 100) by offering landowners advice and possible funding through the Environment Fund grant (Efund), for stock exclusion fencing, planting and pest control. From Wetland incidents are dealt with by Compliance/Monitoring staff. A robust system based on remote methodology for determining wetland loss of extent or values can be developed once accurate up-to-date mapping is completed. be managed by the Compliance Monitoring Manager.

Ngā tapirihanga / Attachments

Nil

TITLE: Climate Change and Biosecurity

From: Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity

Authorised by Group Manager/s: Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 22 August 2022

Whakarāpopototanga / Executive summary

The Long-Term Plan signalled the need for a climate change - biosecurity strategy. It is proposed that the aim of the strategy will be to prioritise the risks and management implications of climate change as they relate to biosecurity and recommend actions for risk mitigation. It is expected work will get underway prior to December and the strategy finalised during 2023.

Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information contained in the item on climate change.
2. That staff bring a progress update on the strategy to a future working party meeting.

Background/Tuhinga

Northland has a mild, humid, and rather windy climate. The land is close to the sea with an almost subtropical geographical location and low elevation. Summers tend to be warm and humid while winters are typically mild with many parts of the region having only a few, light frosts each year. The prevailing wind for most parts of the region is from the south-west however in summer tropical cyclones give rise to north-easterly winds and heavy rainfall. Mean annual temperatures range from 15.5°C to 16°C in the Far North and eastern areas, to between 14°C and 15.5°C

Some of the predicted impacts of a moderate rate of climate change for Northland include changes in average temperature, sea level rise and rainfall patterns. In general, Northland, like much of the north of New Zealand, is likely to become warmer and drier- particularly along the eastern seaboard and in the far north. According to recent climate predictions and compared to 1995, temperatures are likely to be 0.7˚C to 1.1˚C warmer by 2040 and 0.7˚C to 3.1˚C warmer by 2090. By 2090, Northland is projected to have from 13 to 75 extra days per year where maximum temperatures exceed 25˚C. The Far North already experiences very few frosts and, in the future, frosts are likely to become extremely rare. It is also noted that models and climate projections from the latest IPCC reports will be available to update climate predictions for each region in the future.

Northland is at risk of pest invasion and establishment due to its benign climate, proximity to international shipping lanes, visiting recreational vessels and exposure to wind currents from Australia. In addition, an increased occurrence of fire in parts of the region due to a hotter, drier climate will also optimise the chances of established invasive weeds spreading and influencing the establishment of new marine species- some of which may impact on natural systems.

Climate warming in Northland is resulting in opportunities to grow new, sub-tropical crops and the region is already a significant producer of subtropical fruits and crops, e.g., bananas and pineapples. However, this diversity also brings with it challenges in cropping practices, irrigation, and pest/disease management. A small increase in temperature due to climate warming would enable more tropical invertebrate species to establish in Northland, especially if accompanied by sufficiently

moist conditions. For many species, a single warm year may not be enough for establishment, but for others, it may enable the insect to obtain a “foothold” and become adapted to the new environment.

Northland also has a thriving pastoral and forestry industry and is a major tourist destination. Pest arrivals often have a good chance of establishment and subsequent spread throughout the region and thereafter further south.

Given this background it is proposed that the aim of the strategy will be to prioritise the long- term risks and management implications of climate change as they relate to biosecurity and recommend actions for risk mitigation. In doing so it is expected input from Biosecurity New Zealand and the relevant crown research institutions will sourced to provide expert advice in the themes of marine, freshwater and terrestrial environments.

It is expected that providing this approach is supported by the working party that a request for proposals and engagement of a consultant to lead coordination of the strategy will be undertaken before the end of December and the final report available in 2023.

Ngā tapirihanga / Attachments

Nil

TITLE: Pest Organisms

From:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity; Curtis Harris, Biosecurity Incursion Management Officer and Kaeden Leonard, Acting Biosecurity Manager - Marine
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on 22 August 2022

Whakarāpopototanga / Executive summary

This report provides an update on three new pests that have been recently found and are unwanted in Northland.

Ngā mahi tūtohutia / Recommended actions

1. That the working party note the information.
2. That staff bring a further update on new organisms to Northland back to the working party at a future date.

Background/Tuhinga

An objective of the Regional Pest and Marine Pathway Management Plan is to prevent the establishment of new pests and this item provides information on those pests which are known to have recently established in Northland. In addition, section 100V of the Act may be used to investigate emergency control of new incursions of pests that are not otherwise listed in the regional pest plan.

New pests to northland include Rainbow lorikeets which are permitted to be kept in aviaries however if they escape, they can survive in the wild and directly impact on survivorship of our native parrot fauna. These pests are part of a national response led by Ministry of Primary Industries (MPI) and sightings of Rainbow lorikeets in the Brynderwyn-Mangawhai area over the last year has prompted MPI to launch a response. These parrots are very wary and require dedicated resourcing to locate all of the population. MPI is in the process of engaging a specialist contractor to undertake surveillance of the northland population with the aim of formulating an eradication plan. Auckland Council and Northland Regional staff have also been in liaison and collaborating with MPI to ensure a successful eradication. It is expected that response operations should commence before the end of this year.

In addition, a new moth called army fall worm has been identified from northland which in its larval stages are known to feed on more than 350 plant species, including many crops grown in New Zealand. The Ministry for Primary Industries believe fall armyworm was blown across to New Zealand at some stage earlier this year, floating on strong winds from Australia where it has been present for a couple of years. More than 26 cases have been confirmed across New Zealand since it was first found early this year, including three properties in Kaitaia and one in Hikurangi.

Scientists believe the fall armyworm will struggle to become established in New Zealand because it is more suited to a tropical climate, and it would struggle to survive a New Zealand winter. However,

Northland's moist, subtropical climate could allow it to overwinter and gain a foothold, especially if temperatures were to increase in the future.

Ministry for Primary Industries are monitoring soil and air temperatures of several regions around the country (including Northland); to monitor for any environmental trend above the known threshold that is suitable for fall armyworm development. In addition, MPI has been working with local hapū and supporting them with information on the impacts fall armyworm could have on taonga species and māori.

The Eastern Australian flatback mangrove goby (Mugilogobius platynotus) was discovered for the first time in mangroves adjacent to Ngunguru River, Northland and this is the first time this species has been detected in New Zealand. Three specimens (two males and one female) were collected and formally identified by researchers from the Museum of New Zealand Te Papa. Small (mostly <100 mm), many introduced goby species globally have been found to proliferate in the right host environments and have negative impact on the ecosystem functioning leading to the degradation of communities of local fish species. Little is known how the goby will react in Northland and biosecurity staff are currently working with MPI, researchers from Te Papa Museum and the community to determine the current distribution.

Ngā tapirihanga / Attachments

Nil

TITLE:	**Kauri Protection - The New National Plan - Rules and Implications for Northland**
From:	Gavin Clapperton, Kauri Boardwalks Project Lead and Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity
Authorised by Group Manager/s:	Don McKenzie, Pou Tiaki Pūtaiao - GM Biosecurity, on

Whakarāpopototanga / Executive summary

On the 2 August 2022 the National Pest Management Plan (NPMP) for the protection of kauri came into effect. The plan has been led by Ministry for Primary Industries (MPI) and is the culmination of ten years work by many individuals from multiple organisations across the country. The NPMP is the strongest form of protection under the Biosecurity Act and assigns ten rules to protect kauri nationwide. Implementation will be led out by a new national entity called "Tiakina Kauri". The government has also allocated $32 million dollars over five years to fund the plan and some of this funding has already been allocated to the Northland Regional Council (NRC) for implementation of the plan.

A presentation which describes the history of the plan and expectations can be viewed at:

2.1 Council Technical Workshops.pdf

In addition, a table of the rules and policy intent can be found at:

Draft - Rules and Policy Intent reference sheet.pdf

There is discussion around the roles and responsibilities for compliance and enforcement between Tiakina Kauri (MPI) and the other agencies including regional councils and Department of Conservation (DOC). Currently it is undecided where the responsibility for compliance will lie as councils and agencies such as DOC are not funded for these actions. Decisions on this are due at the end of September before the next NPMP announcement will be made.

The NRC has a Regional Pest and Marine Pathways Management Plan and rules to safeguard kauri – these will remain in place until the next review. However, where there is duplication or inconsistencies with the national plan the rules in the national plan will take precedence.

The introduction of the NPMP doesn't impact our current projects and NRC will continue to deliver work in kauri protection including soil sampling, management plans, installation of fencing, wild animal control, track upgrades, and engagement and advocacy work. Some of these workstreams are externally funded.

Ngā mahi tūtohutia / Recommended actions

1. That the working party note the report.
2. That a further update on progress is provided to a future working party meeting.

Background/Tuhinga

Not applicable

Ngā tapirihanga / Attachments

Nil