

# **Biosecurity and Biodiversity Working Party**

**Wednesday 2 December 2020 at 1:00pm**

# **AGENDA**

## Biosecurity and Biodiversity Working Party Agenda

Meeting to be held in the Committee Room  
36 Water Street, Whangārei  
on Wednesday 2 December 2020, commencing at 1:00pm

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

### MEMBERSHIP OF THE BIOSECURITY AND BIODIVERSITY WORKING PARTY

Chairperson, NRC Councillor Jack Crow

Councillor Justin Blaikie	Councillor Marty Robinson	Councillor Rick Stolwerk
Ex Officio Penny Smart	Te Uri o Hau Settlement Trust, Georgina Connelly	Patuharakeke Te Iwi Trust Board Julianne Chetham
Councillor Michelle Elboz	Te Rūnanga O Ngāti Rehia, Nora Rameka	

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<b>1.0 HOUSEKEEPING</b>	
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**TITLE:** Dog predation of kiwi

**ID:** A1377468

**From:** Pete Graham, Biosecurity Specialist

**Authorised by** Jonathan Gibbard, Group Manager - Environmental Services, on date 05  
**Group Manager:** November 2020

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### Executive summary/Whakarāpopototanga

Uncontrolled dogs pose a direct threat to kiwi and other vulnerable wildlife in Northland and a more collaborative and consistent approach by key stakeholders can help reduce the risks to kiwi and other wildlife like pāteke, shorebirds and bittern

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### Recommended actions

- The working party notes the resourcing and planning needs of the Northland Kiwi forum and seeks an update on progress with the proposed plan at a future working party.

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### Background/Tuhinga

The Northland Kiwi Forum is established to facilitate the implementation of the Northland Brown Kiwi Taxon Plan – a plan which aims to safeguard kiwi in Northland for future generations. The forum provides information and support to community kiwi projects and practitioners and ensures all groups and individuals involved in Northland brown kiwi recovery have support, access to best practice information, and a forum for networking. Representatives on the forum include the Department of Conservation, Northland Regional Council; Kiwi Coast, kiwi protection groups, Forestry and Farming sectors, Territorial Authorities (policy /planning and dog control).

The Forum met in September and the issue of uncontrolled dogs, in particular, the risks they pose to kiwi and other wildlife was discussed. The following issues were noted.

- There is a need to improve the consistency between TA's regarding RMA/subdivision rules in high density kiwi areas and other high ecological value areas.
- Future subdivision and future kiwi translocation/protection areas need to be planned and mapped.
- An update of kiwi distribution mapping is needed, especially in high-density kiwi areas.
- Consistent advocacy around dog control and the threats all dogs pose to kiwi and other vulnerable protected wildlife.
- Consistent advocacy targeting problems areas/signage/dog workshops.
- Consistent advocacy on kiwi distribution and habits/habitats.
- Extra dog compliance officers need to be resourced - perhaps seasonal and targeted areas
- Identifying/create alternative kiwi safe dog exercise areas.
- Resourcing monitoring consent requirements in dog free areas.
- Sharing dead kiwi DNA protocols with key stakeholders.
- Resourcing trail cameras/dog traps DNA kits and training for relevant stakeholders

**In summary:**

1. The management of uncontrolled dogs is complex, involves multiple stakeholders and requires additional funding for advocacy, compliance, and community behaviour change if this issue is to be addressed properly.
2. There is a need for a plan which describes how a more collaborative and consistent approach to the issues could be achieved and the costs. Such a plan could be funded by the collective of the forum.

NRC staff will continue to actively engage with this Forum and directly with stakeholders who have a direct role to play in controlling dogs and protecting kiwi and keep the working party informed of progress.

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**Attachments/Ngā tapirihanga**

Nil

**TITLE:** Marine Pest Interregional Plan

**ID:** A1377467

**From:** Kathryn Lister, Biosecurity Officer - Marine

**Authorised by** Jonathan Gibbard, Group Manager - Environmental Services, on date 05  
**Group Manager:** November 2020

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### Executive summary/Whakarāpopototanga

In early 2019 the four councils in the Top of the North (TON) Marine Biosecurity Partnership consulted on approaches to managing marine pests across the 'Top of the North' – this demonstrated support for more action to control marine pests, a consistent approach across the regions and a single rule that is easier to understand and implement. As previously reported to council, the development of an inter-regional marine pest management plan (IRMPMP) is the preferred approach.

This paper outlines progress on development of an IRMPMP proposal across the Northland, Auckland, Waikato and Bay of Plenty regions in partnership with DOC and Biosecurity New Zealand. Key areas that have been progressed include:

- the objective and what success looks like
- potential rules
- how these would be implemented in practice (options and a preferred option)
- what this would cost (early estimates)
- the process to decide how the plan will be funded, including guiding principles/criteria next steps and indicative timeline.

Staff are now in a position to engage with Māori and key stakeholders to test relevant elements of the above in more detail – this will inform refinement of the rules and approaches to implementation and provide confidence for council that it has canvassed the views of key parties prior to making decisions.

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### Recommended actions

1. That the Working Party endorse the pre-engagement steps outlined below.
  2. That the Biosecurity Manager – Marine prepare an item to workshop with full council based on the material below and incorporating feedback from the working party and results of any pre-engagement available at the time.
  3. That staff update the working party on results of pre-engagement with Māori and stakeholders.
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### Background/Tuhinga

#### Objective of the plan

Protecting our coastlines is a team effort that requires all Kiwis to play their part - including government and councils, Māori, those that work on and around the water, and recreational boaties and fishers. A robust plan including consistent marine biosecurity rules for the upper North Island will enable all who use the water to help stop the spread of marine pests and diseases, to ensure our ocean remains a precious taonga for the benefit all New Zealanders. Invasive marine pests are primarily spread by travelling vessels and represent a credible and growing threat to our coastal ecosystems. To date, each region has tended to intervene on marine pests independently and

separately as they see fit – most have focussed on ‘species-led’ programmes that control the pests of concern for that region.

### **About the Inter-Regional Marine Pathway Management Plan (IRMPMP)**

Once in New Zealand, marine pests can be spread by humans in a number of ways. These are called ‘Pathways’. Pathways include within ballast water or biofouling, and on equipment such as fishing gear, aquaculture equipment and construction material. Hull surveys show that marine pests are commonly transported in the hard-to-clean nooks and crannies of boats, the bottom of keel bulbs and spots where the antifoul has missed. Once marine pests become established, they are difficult and expensive to control. A Pathway Plan is an effective management option as it focuses on ‘prevention’ and ‘slowing spread’. To date, each region has tended to intervene on marine pests independently and separately as they see fit – most have focussed on ‘species-led’ programmes that control the pests of concern for that region. In early 2019 the four major councils in the TON Partnership consulted with stakeholders – this demonstrated support and demand for more action to control marine pests, including support for a consistent approach across the regions and a single rule that is easier to understand and implement.

The regions themselves all have similar risks, and the consistency will enable simplicity for boat owners while delivering efficiency gains for implementation (including surveillance, monitoring and compliance). Central government (Biosecurity New Zealand and the Department of Conservation) are involved and the IRMPMP proposal is acknowledged as a potential model for a national plan.

If progressed, it will help prevent adverse effects on economic well-being, the environment, enjoyment of the natural environment and the relationship between Māori, their culture, their traditions and their ancestral lands, waters, sites, wāhi tapu, and taonga. It would also complement other aspects of marine biosecurity pest management under the Biosecurity Act, including the 2018 Craft Risk Management Standard: Biofouling on Vessels Arriving to New Zealand, the draft National Environmental Standard for Aquaculture, and marine pest or pathway plans that manage craft hull biofouling in other regions.

### **What success looks like**

The TON partnership has agreed that successful implementation of the pathway plan will achieve the following:

**National model** – The pathway plan is a stepping-stone to a national model, demonstrating the value of inter-regional consistency and coordination in marine biosecurity to other regions.

**Reduced biosecurity risks** - Programme objectives are clearly defined, with measurable improvements in areas including:

- Awareness of marine pathway risks and importance of clean vessel hulls and equipment;
- Adoption of behaviours that lower the risk of marine pests spreading;
- Proportion of moving vessel fleet with clean hulls and equipment (comply with rules);
- Prevention achieved relative to reactive enforcement following exposure to risks; and
- Early detection of any new marine threats that could be spread via fouled hulls or equipment.

**Commitment and engagement** - iwi, stakeholders and maritime community have high levels of awareness, ownership and commitment to reduce marine pathway risks (including strong “champions” and individual boaties holding themselves accountable).

**Strong incentives/Low barriers** – requirements are clear and there are strong incentives in place for adoption of low risk behaviours, and barriers to adoption of rules and requirements are low (including affordable access to cleaning facilities), and it’s becoming easier to engage and comply (including access to enabling tools).

**Working effectively together – value for money – including:**

- Achieving appropriate consistency across regions (e.g., consistency of communication/messaging, surveillance and monitoring, compliance and enforcement);
- Taking a co-ordinated approach across regions, with other aspects of biosecurity, and with other areas of compliance (e.g., RMA);
- Communication lines open, learnings are shared, and accurate information is flowing;
- Utilising shared services and common systems where it makes sense (e.g., cost-effective, consistent, efficient etc.);
- Leveraging strengths across the partnership and taking a shared approach to continuously strengthening marine pathway management;
- Focusing on the most effective and efficient inter-regional approach (recognise issues faced by other regions/remove arbitrary border); and
- Leveraging strengths and continuous improvement.

**Science- and risk-based** – risk-based approach underpinned by reliable data (e.g., monitoring results) and sound science, and knowledge gaps identified and leading to targeted research.

**Long term investment** - long term partner commitment and resource investment secured (proportionate)

**Complementarity** - outward focus to ensure marine pathway management is aligned with, and complements, wider marine biosecurity and protection, including:

- a consistent approach to/with related RMA functions and align BSA/RMA toolbox
- increased understanding of marine pests and pathogens
- marine border measures
- measures for other marine pathways outside the scope of the pathway plan (e.g., aquaculture equipment and stock)
- marine pest and pathogen specific responses and long-term management programmes

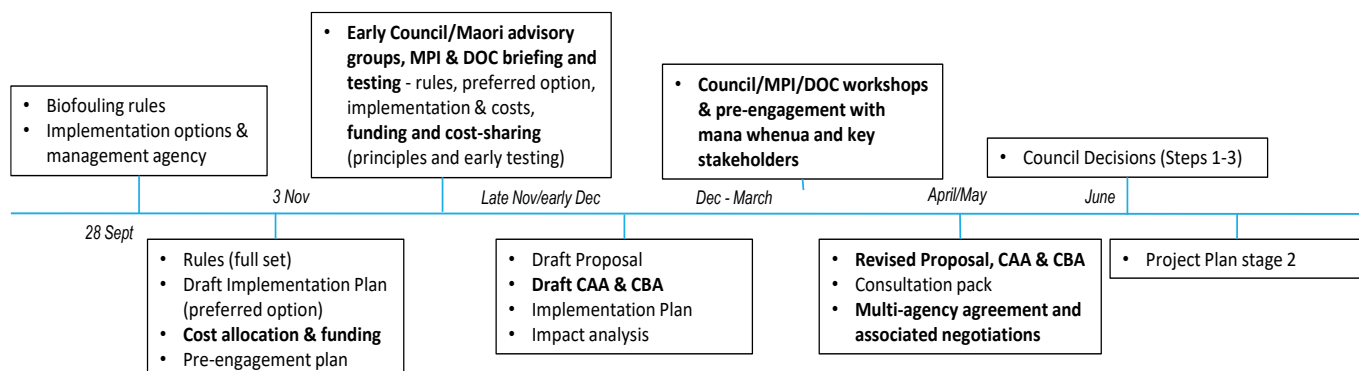
**Pre-engagement**

TON is now ready to enter a period of early engagement to test-the proposal in more detail with Māori and key stakeholders. This will inform further refinement of the proposal and provide confidence for council that it understands the views of key parties prior to making a decision on whether to proceed with formal notification - staff anticipate this decision will be put to council early 2021 and assuming approval to proceed, formal consultation (notification submissions and hearings) would likely start mid-2021. The TON partnership wants 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 Māori and the roles they wish to play in marine pathway management are understood, and that Māori have the opportunity to participate in co-design of the pathway plan proposal; and
- pre-engagement with partners/stakeholders has proactively identified concerns and provided an opportunity to refine and improve aspects of the proposal before the proposal is formally presented to council.

Staff intend engaging through TTMAC and MTAG to seek feedback on both the proposed plan and any approach to broader Maori engagement and input during the pre-engagement period. Any initial feedback from TTMAC members on the Biosecurity and Biodiversity Working Party would be gratefully received and help build staff approach leading into TTMAC's next formal meeting in February 2021..

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



### The proposed rules

Three rules have been identified to date as having real merit in the control of marine pest pathways; two biofouling rules (craft must meet a biofouling standard when moving, and an obligation for gear and equipment on moving craft to be free of fouling and sediment) and a rule relating to ‘provision of information’ to management agencies.

A fourth rule has also been considered with the intent to address risk associated with artificial marine structures but requires further careful consultation to understand partner and stakeholder views. Our preference for managing the risk posed by artificial structures in the coastal marine area is a voluntary industry-led approach. Only where all attempts at cooperation with structure owners in high-risk situation have been exhausted would we envisage this rule applying, effectively providing a tool of last resort, which could create an ‘obligation to have marine pathway risk management plan if required’. An exemption (or equivalent) could be provided for in relation to this additional rule, which creates incentives for industry to take a proactive approach to this issue and gives greater certainty to artificial structure owners. Staff are particularly keen to test the merits of such an approach with Māori and stakeholders.

### How these rules would be implemented in practice

The project team has considered how an IRMPMP would be implemented in practice, based on the potential rules above. We’ve looked at this at a practical level – what are the sorts of activities that would be carried out, to what level, what sort of leadership and coordination is needed, and who needs to be involved (roles)? Several options were considered, from a minimum viable option through to an aspirational option which would include the formation of a dedicated management agency. A preferred option has been endorsed by the TON steering group, which was somewhere in between these. It provides for a coordinated programme that is targeted to address the highest risks, with modest dedicated resourcing and capability in place to support this. Specifically, we can expect to achieve the following through investment in this option:

- A greater level of coordination across regions will be achieved under this option, with some dedicated resource and capability in place to facilitate this.
- Compliance may still be variable across the TON regions, but as well as greater coordination regions will invest in some proactive as well as reactive compliance effort.
- There will be some regional variation in the scale of, and approach to, surveillance and monitoring undertaken and overall, with this planned and targeted to address the highest

risks and with minimum levels of service met (e.g. targeting high risk sites – marinas, mooring zones and anchorages).

- Approximately 40% of the total vessel fleet surveyed across regions overall.
- Concurrently the councils are working with the New Zealand Marina Operators Association and Biosecurity New Zealand to create an industry standard for boat cleaning and antifouling. This will support the pathway plan by ensuring that all boat owners can have confidence their boat has been cleaned to a specific standard.
- A key tool for the pathway plan will be a marine vessel portal, which will provide a centralised database for sharing hull biofouling information across the four regions.
- There may still be some inconsistencies between participating regions but overall, there will be a more cohesive programme that at least targets the highest risks in a coordinated way.
- This option is likely to achieve a higher level of confidence and buy-in from the boating community, with some proactive elements in the programme to gradually build support and grow levels of compliance.
- This option supports a gradual strengthening of protection, with the highest risks managed. And it continues gradual but steady progress/is a stepping-stone toward a national model.

### **Barriers to success**

Potential barriers to successful implementation of the pathway plan have been discussed, and while many will be addressed under this preferred option (such as awareness of pathway plan risks and the adoption of good cleaning practices achieved through a dedicated Engagement & Behaviour Change Programme) others are likely to remain as barriers including limited:

- affordable and reliable access to appropriate cleaning facilities
- enabling tools (science and innovation gap)
- consistency for complimentary rules (e.g., in-water cleaning)
- enforcement tools under the Biosecurity Act (no ability to issue infringements)
- national consistency
- national biosecurity standards for aquaculture
- national vessel registration

Some of these may also be addressed over the duration of this implementation approach, i.e., this plan is intended to act as a stepping-stone to a national model which will in the future resolve the lack of consistency currently observed at a national level. However, addressing others is currently out of scope and would require longer term investment in the more aspirational activities the project team identified under a 'Comprehensive programme with dedicated management agency'.

### **Budget estimates**

The overall current or 'status quo' levels of investment in marine biosecurity activities across the four partner regions and Biosecurity New Zealand is approximately \$2.67m per annum including operational costs and FTEs. The project team have estimated costs to implement the proposal (including surveillance, monitoring, raising awareness/education, science and enforcement) - this indicates that annual costs would be ~\$4m for the first 5 years of the plan. This will require an increased investment from councils and there is an expectation that Biosecurity New Zealand and DOC will contribute a share of costs based on national public benefit. There may need to be a phasing in period to allow time for councils and central govt agencies to find the funding required to implement the plan, i.e. allowing for council Long Term Plan processes and central govt budgeting processes.

An important feature of the new programme and strategic intent is also to invest in growing partnership with mana whenua as kaitiaki (guardians, caretakers) for the moana. To provide for this the proposed future budgets include specific allocation for roles mana whenua 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 mana whenua and determined through engagement within the programme between mana whenua and other partners/funders. Note that mana whenua in some regions have previously expressed interest in participating (funded roles) in areas of activity, such as, 'advocates', 'education', 'surveillance' and 'mātauranga'.

### Funding of the plan

TON are currently exploring funding options, including the potential for a share of funding by exacerbators (e.g., vessel owners), and how remaining costs would be shared between beneficiaries (e.g. the public, central and regional government). A set of criteria to guide assessment of funding options/funding decisions have been endorsed by TON leadership and are ready for early testing with partners and stakeholders. The endorsed criteria suggest that funding decisions should take into account:

1. **The management objectives of the pathway plan** – the objective(s) of the proposed pathway plan, taking account of the agreed 'success criteria'.
2. **The distribution of benefits over time** – how the benefits of proposed marine pathway management are distributed between the national public good, the regional public good and private interests.
3. **The extent to which exacerbators create pathway risks** – how much each group of exacerbators contributes to spread of marine pests on the proposed pathways.
4. **Legislative responsibilities and rights of beneficiaries and exacerbators;**
5. **Incentives and influence** - those required to pay for a biosecurity service should be able to do at least one of the following:
  - Change their behaviour to reduce the costs of the service or the risks that give rise to the need for it over time;
  - Assess whether the true benefits of the service at its current levels outweigh its costs on an on-going basis, and thereby influence its on-going provision; and/or
  - Influence whether the service at its current levels is being provided in the most cost-effective manner.
6. **Practicality and efficiency** – practicality and administrative efficiency of the cost allocation method and proposed cost allocation.
7. **Fairness and reasonableness** – whether the cost allocation method is fair and reasonable, taking into account equity and appropriate consistency across the four regions;
8. **Security of funding** – security of funding of the cost allocation method and proposed cost allocation over the term of the pathway plan.

The intent is to develop a multi-agency agreement on funding and roles in the IRMPMP, and to have this at least agreed in principle before the IRMPMP proposal is formally considered by Councils. This will take some time to negotiate, and negotiations are set to commence from December 2020. A cost benefit analysis and cost allocation analysis are both underway and will inform this.

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### Attachments/Ngā tapirihanga

Nil

**TITLE:** Stop Wild Ginger summary document

**From:** Joanna Barr, Biosecurity Specialist - Pest Plant/Aquatics

**Authorised by** Jonathan Gibbard, Group Manager - Environmental Services, on date 05  
**Group Manager:** November 2020

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### Background to Attachments

The Stop Wild Ginger Project is a collaborative initiative that started in 2015 to further efforts into investigating biocontrol options for wild ginger (*Hedychium gardnerianum*) in New Zealand, and to seek funding for this work.

Initial work was undertaken through the National Biocontrol Collective and Manaaki Whenua Landcare Research. This was then followed by a successful application by the Stop Wild Ginger Stakeholder Group to the Ministry for Primary Industries' (MPI) Sustainable Farming Fund. This grant has enabled the collection and testing of agents from India to determine if they are suitable agents for release in New Zealand.

This Sustainable Farming Fund agreement is co-funded based on the structure below, and Northland Regional Council acts as the fund manager.

Co-funding entity	Amount
Sustainable Farming Fund	\$464,470
National Biocontrol Collective	\$150,000
Manaaki whenua Research	\$120,000
Northland Regional Council	\$13,331
Hancock Forest Management	\$6,667
Summit Forests	\$6,667
Far North District Council	\$6,667
Whangarei District Council	\$6,667
Kaipara District Council	\$6,667
Auckland Council	\$6,667
Department of Conservation	\$6,667
<b>In Kind contributions</b>	
Manaaki whenua Research	\$18,900 (In kind)
Stop Wild Ginger Group	\$45,060 (In kind)
Auckland Council	\$32,400 (In kind)
Northland Regional Council	\$6,300 (In kind)

This agreement and the project milestones were originally designed to take place over a three-year term commencing in July 2018. Due to the test results to date and the implications of COVID-19 for international travel, the project milestones have recently been reviewed and adapted.

The attached file contains the most recent Stop Wild Ginger Stakeholder Group meeting minutes, a Stop Wild Ginger Project summary as at June 2020, and revised timelines and budgets.

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### Attachments/Ngā tapirihanga

Attachment 1: Stop Wild Ginger Stakeholder Meeting Minutes 02 July 2020 - Summary document  
June 2020 - Proposed revised timelines and budgets [!\[\]\(94480c799e843c3a4dcfaf8c99e6db79\_img.jpg\)](#) [!\[\]\(edfbfa3a67cfd48475c78ccd410e2d34\_img.jpg\)](#)

# Stop Wild Ginger Stake Holder Meeting Minutes

**Date:** Thursday 2<sup>nd</sup> July 2020, 1pm

**Location:** NRC Committee Room, and remotely via Zoom

**Attendees (in person):** Tony Dwane (Hancock Forest Management), Keir Volkering (representing Ngati wai), Joanna Barr (NRC), Jenny Dymock (entomologist working with NRC), Spencer Jellyman (WDC),

**Attendees (via Zoom):** Hugh Gourlay (MWLR), Arnaud Cartier (MWLR), Murray Braithwaite (Summit Forests), Karen Lucich (Summit Forests), Emma Edney-Browne (Auckland Council), Holly Cox (Auckland Council), Dan O'Halloran (DOC), Genevieve Bennett (MPI)

**Apologies:**

1. **Introduction:** Welcome and brief introductions for new members
2. **Project summary to date:** Hugh summarised the project to date, including the work undertaken prior to the Sustainable Farming Fund project, and answered questions for the group. Key points summarised below, see Attachment 1 for a more detailed summary circulated prior to the meeting.

Agents that have been investigated and discounted as potential options:

- Pathogens: Field survey suggests pathogens were rare and had limited impact, and consequently were discarded as a potential area of focus.
- Gregarious leaf feeding moth (*Artana flavipuncta*): Discarded as a potential agent as it was found to be too non-specific.
- Hispine beetle group: Found to be rare in the field. Field studies and host testing on two species showed them to be too non-specific and inflict limited damage. Two other species not tested, but highly likely to produce similar results. Discarded as potential area of investigation.
- 4-spot stem mining fly (*Merochlorops uncinatus*): Once host testing results were able to be separated from the 3-spot fly results, showed good damage potential but found to have too wide a host range and discarded as a potential agent.
- 3-spot stem mining fly (*Merochlorops incisus*): Second 3-spot species taxonomically separated from the other 3-spot species collected. Was rare in field collections. Further work to focus on more common of two 3-spot species.

Remaining agents under consideration:

- 3-spot stem mining fly (*Merochlorops uncinatus*): To date this species has not been successfully reared in the laboratory from NZ wild ginger. It may be that it is too host specific and unable to attack our hybridised NZ wild ginger. There is also the possibility that the condition and availability of wild ginger in laboratory conditions may be impacting the success of the rearing. In general, the flies have proven hard to rear in captivity as each larva requires their own stem to develop fully.
- Ginger weevil (*Metaprodiotes trilineata*): Testing has shown the adult weevil has a wide feeding host range in the laboratory but appears to have a narrow host range for oviposition, larval feeding and development. Larval damage shows good impacts. However, there is still not sufficient replication of results to accurately describe their host range and impacts to the level required for an EPA application.

3. **Discussion on proposed way forward and modified milestones:** Hugh outlined MWLR recommendations for proposed way forward, the impacts of COVID 19 on the proposed timeline (see Attachment 1 for proposed timeline), and the risks associated with these options.

Manaaki Whenua Landcare Research recommendation for 3-spot stem mining fly (*Merorchlorops uncinatus*):  
Obtain third party approval from Indian authorities and import the 3-spot fly (*M. uncinatus*) for further host-testing in containment facilities in New Zealand. Currently only CABI has the approval to take agents from India to the UK.

*Justification:*

- Allows for access to abundant and vigorous NZ wild ginger for host testing, removing this as a variable contributing to poor results and increasing likelihood of success.

*Risks:*

- Unknown impact of COVID-19 on timeline for resumption of travel
- Similar results to those obtained by CABI, with the agent proving too specific to rear successfully on NZ wild ginger or to act as an effective agent.

Manaaki Whenua Landcare Research recommendation for Ginger weevil (*Metaprodiotes trilineata*):  
Obtain third party approval and import the weevil and carry out more host testing in containment in New Zealand with the goal to obtain robust enough results to support an application to the EPA for release.

*Justification*

- Increase result replication
- Better access to other non-target species for host testing to improve plant species representation in these tests.
- Improved access to more vigorous and abundant NZ wild ginger

*Risks*

- Unknown impact of COVID-19 on timeline for resumption of travel
- Agent could still prove too unspecific for release
- The challenges of rearing this species means that direct release may be the best option (whereby one life stage is imported, and the next life stage is released). This will mean there is likely to be only one release site as a result of this work, unless MWLR have more success with rearing through multiple life stages.
- Weevil is a relatively large, slow growing agent, which may impact its establishment. This also reduces initial numbers available for collection from source sites.

Following discussion of these options and risk, the group unanimously agreed with the MWLR recommendations and proposed approach.

- 4. Financial Summary:** Jo provided update on the financial accounts to date – See Attachment 2. It was agreed remaining outstanding invoice to MPI would be reduced to bring the project to a \$0 balance, as a clear starting point for re-structuring the remaining milestones.
- 5. Proposed financial milestones and future invoicing:** Jo presented the financial framework for the restructured milestones proposed by MWLR for their components of the work (see Attachment 3 & 4). It was agreed by the stakeholder representatives present to invoice the co-funding partners for the third and final instalment as planned this financial year, and for the NRC to hold these funds until required. If at any of the proposed STOP/GO points the project does not proceed, unspent funds would be returned.

**ACTION:** Jo to follow up with the co-funder representatives not present, and to ensure this is raised at the Biocontrol Collective Meeting.

**Next meeting:**

- Target January 2020 – Review impact on COVID situation on proposed timeline.

Meeting closed at 2 pm

ATTACHMENT 1: PROJECT SUMMARY AS AT JUNE 2020

# Stop Wild Ginger

## Project summary to date - June 2020

In May 2020 CABI submitted final reports to Manaaki Whenua Landcare Research on the host testing completed to date. Manaaki Whenua Landcare Research (MWLR) has now completed their review of this data, plus all of data to date to determine the next steps for the project.

This has coincided with the impacts of the COVID 19 virus, which has significant implications for international travel and coordination with the Indian Government. The below summarises the findings to date and outlines a suggested path forward for the next steps of the project.

### Potential agents tested to date

Five agents have now been collected and undergone host testing in the UK; two stem mining flies, a weevil, a leaf feeding moth and a hispine beetle.

The leaf feeding moth (*Artana flavipuncta*), has been discarded as a potential agent by MWLR as trials showed larvae were able to feed and can be reared on many non-target plants.

The hispine beetle (*Prionispa patra*), first collected in October 2019, has also been discarded as a potential agent by MWLR as it also showed a broad host range in adult feeding trials and shows almost no significant damage to the plant in the field in India.

### Stem Mining Flies - *Merochlorops* species

Following on from the taxonomic inspection of the stem-mining flies by a Dipteran expert in the UK, Manaaki Whenua Landcare Research conducted DNA molecular analyses which supported the separation of the 4-spot and 3-spot flies based on the morphological differences observed.

Based on all results to date, the 4-spot fly was confirmed to have a wide host range outside the subfamily, and although there remain gaps in the plant species representation, it is likely that it will attack a wide range of species and be unsuitable as a biocontrol agent here. MWLR have therefore decided to abandon this species from further testing or consideration.

Additional host-testing was set up by CABI for the newly defined 3-spot species following July and October collections. These trials were carried out primarily to determine if the 3-spot fly would attack our NZ wild ginger. Unfortunately, these trials failed to return any positive controls in the laboratory in the UK.

For a host specificity test to be recorded as accurate and definitive, more than 3 positive results of feeding, egg-laying and larval development of the insect on the target host plant are required. These are called controls. If more than 3 replicates of the control plants showing feeding, egg-laying and development are obtained and we then get 3 or more replicates of the non-target plants showing no feeding, egg-laying or development in the same series of tests, this test can then be recorded as an accurate and positive result. In all of the testing done indoors at CABI to date, we have very few occasions where this has occurred.

The 3-spot fly remains difficult to rear and test in the laboratory in the UK. Field observations and lab results to date still suggest that the 3-spot fly is likely to be more specific, but so far this species has not been successfully reared in the laboratory from NZ wild ginger. It may be that it is too host specific and unable to attack our hybridised NZ wild ginger. There is also the possibility that the condition and availability of wild ginger in laboratory conditions may be impacting the success of the rearing. In general, the flies have proven hard to rear in captivity as each larva requires their own stem to develop fully.

In addition, following the last collection, further taxonomic analysis of 3-spot specimens determined that there are two 3-spot fly species which have only subtle morphological differences. These have been subsequently described by an expert taxonomist as *M. incisus* and *M. uncinatus*. *Merochlorops uncinatus* was the more common of the two in field collections, though there was some variation in relative proportions which appeared to relate to the timing of collection, and this species would be the target for further work.

*Manaaki Whenua Landcare Research recommendation:*

Obtain third party approval from Indian authorities and import the 3-spot fly (*M. uncinatus*) for further host-testing in containment facilities in New Zealand, allowing access to vigorous and more abundant NZ wild ginger for tests.

Ginger Weevil - *Metaprodiotes trilineata*

Testing has shown the adult weevil has a wide feeding host range in the laboratory but appears to have a narrow host range for oviposition, larval feeding and development. However, there is still not sufficient replication of results to accurately describe their host range and impacts to the level required for an EPA application, again as a result of insufficient 'positive controls' as described above.

*Manaaki Whenua Landcare Research recommendation:*

Obtain third party approval and import the weevil and carry out more host testing in containment in New Zealand to improve result replication and to broaden the range of potential hosts tested, with the goal to obtain robust enough results to support an application to the EPA for release. Conducting the further tests in New Zealand has the benefit of improved access to more vigorous and abundant NZ wild ginger, as well as better access to other non-target species for host testing to improve plant species representation in these tests.

If host testing results allow for application to the EPA for release of either species, evidence to date suggests that the best method for release may be direct release. This is due to the biology of the agents; the weevil is a relatively slow growing species with only one generation per year, and the fly takes 2-3 months to develop from an egg to larva with only two generations per year, and each larva requires their own stem to develop fully.

### Impacts of COVID 19

COVID 19 has obviously had a major impact on international travel, which significantly impacts on the next stages of this project. Collection trips will be required both for the recommended NZ based host-testing phase, and for collection for rearing or direct release.

In addition, engagement with Indian authorities regarding the third-party approvals for importing agents to New Zealand are likely to be slower to obtain while their focus on COVID 19 management continues.

The suggested timeline below is based on international travelling resuming in October 2021, but it is likely that this may not be possible until a COVID 19 vaccine is available. This remains an unknown and could put the project resumption back possibly into 2022, or later.

**Suggested revised project milestones and timeline**

<b>Milestone</b>	<b>Description</b>	<b>Due date</b>	<b>Deliverable</b>
9	CABI to apply for 3rd party approval to ship the weevil and fly from India to NZ.	By 31/05/2021 or 31/05/2022	CABI UK to provide report on the progress of this application.
10	If 3rd party approval is gained travel to India in June and October to collect the 3-spot fly and weevil and bring back to NZ. PROJECT STOP/GO POINT: If no 3rd party approval can be gained then the project will stop at this point.	By 31/10/2021 or 31/10/2022	MWLR to provide a report on progress of approvals and importation
11	Conduct host range testing of the fly and weevil in containment. PROJECT STOP/GO POINT: If the host testing results show the fly and weevil are not host specific enough for release the project will stop here.	By 31/03/2022 or 31/03/2023	MWLR to provide a report on results
12	If host testing produces positive results, then apply to the EPA for release of the 3-spot fly and/or weevil. PROJECT STOP/GO POINT: If EPA does not approve release then the project will stop at this point.)	By 31/12/2022 or 31/12/2023	MWLR to provide a report on results of EPA application
13	If EPA approves release, then travel to India in June and October to collect the 3spot fly and/or weevil and bring back to NZ for rearing or direct release.	By 31/10/2023 or 31/10/2024	MWLR to provide a report on progress of approvals and importation
14	Rear insects where possible and apply to MPI for direct release. Make at least one field release of at least one agent which will include a field day	By 31/03/2024 or 31/03/2025	MWLR to provide reports and attend field day
15	Attend or Zoom biannual meetings	By 30/06/2024 or 30/06/2025	MWLR to provide reports and invoices on completion of milestones
16	Provide a final report on the project	By 30/06/2024 or 30/06/2025	
<b>Start Date: 20<sup>th</sup> July 2018</b>		<b>Completion Date: 20<sup>th</sup> June 2024 or 2025</b>	

ATTACHMENT 2: FINANCIAL SUMMARY AS AT JUNE 2020

**SSF Stop Wild Ginger Financial Statement as at June 2020**

*Excludes In Kind Labour Contributions*

2018-2019 Revenue	(GST excl.)
MPI	\$48,352.56
NRC	\$4,444.64
Auckland Council	\$2,222.32
FNDC	\$2,222.32
KDC	\$2,222.32
WDC	\$2,222.32
DOC BOI	\$2,222.32
Summit Forests NZ	\$2,222.32
Hancock Forest Management	\$2,222.32
MWLR	\$40,000.00
National Biocontrol Collective	\$50,000.00
	<b>\$158,353.44</b>
2018-2019 Expenditure	
Milestone 1 - MWLR	\$16,117.52
Milestone 2 - MWLR	\$91,117.52
Milestone 3 - MWLR	\$16,117.52
	<b>\$123,352.56</b>
<b>Fund Balance at 30 June 2019</b>	<b>\$35,000.88</b>
2019-2020 Revenue	(GST excl.)
<b>Fund balance carry forward</b>	<b>\$35,000.88</b>
MPI (Revised for adjusted costs - includes \$4,999 still to invoice)*	\$101,116.51
NRC	\$4,444.64
Auckland Council	\$2,222.32
FNDC	\$2,222.32
KDC	\$2,222.32
WDC	\$2,222.32
DOC BOI	\$2,222.32
Summit Forests NZ	\$2,222.32
Hancock Forest Management	\$2,222.32
MWLR	\$40,000.00
National Biocontrol Collective	\$50,000.00
	<b>\$246,118.27</b>
2019-2020 Expenditure	
Milestone 4 - MWLR	\$16,117.52
Milestone 5 - MWLR	\$39,999.99
Milestone 6 - MWLR	\$114,999.99
Milestone 7 - MWLR - Revised - Not all expected costs incurred	\$0.00
Milestone 8 - MWLR - Revised	\$75,000.00
	<b>\$246,117.50</b>
<b>Fund Balance (To Milestone 8/Project hiatus point)</b>	<b>\$0.77</b>

**ATTACHMENT 3: UPDATED FINANCIAL MILESTONES**

**SSF revised financial milestones for MWLR expenditure for remainder of project**

<b>2020-21 to 2023/2024 Revenue</b>		<b>(GST excl.)</b>
<b>Fund balance carry forward (assuming revised invoice to MPI up to Milestone 8)</b>		<b>\$0.77</b>
MPI		\$315,000.93
NRC		\$4,444.64
Auckland Council		\$2,222.32
FNDC		\$2,222.32
KDC		\$2,222.32
WDC		\$2,222.32
DOC BOI		\$2,222.32
Summit Forests NZ		\$2,222.32
Hancock Forest Management		\$2,222.32
MWLR		\$40,000.00
National Biocontrol Collective		\$50,000.00
		<hr/>
		\$425,002.58
<b>2020-21 to 2023/2024</b>		
Milestone 9 - MWLR		\$43,350
Milestone 10 - MWLR		\$85,000
Milestone 11 - MWLR		\$70,000
Milestone 12 - MWLR		\$64,000
Milestone 13 - MWLR		\$50,000
Milestone 14 - MWLR		\$70,000
Milestone 15 - MWLR		\$17,300
Milestone 16 - MWLR		\$11,000
		<hr/>
		\$410,650.00
<b>Fund Balance</b>		
(for other expenditure associated with reporting and media)		\$14,352.58

**ATTACHMENT 4: UPDATED FINANCIAL MILESTONES**

**Proposed Revised Project Milestones and Timelines**

Milestone	Description	Due date	Deliverable		
9	CABI to apply for 3rd party approval to ship the weevil and fly from India to NZ	By 31/05/2021 or 31/05/2022	CABI UK to provide report on the progress of this application.	\$43,350	<b>20-21 Year 3 Total cost will be \$43,350 + GST</b>
10	If 3rd party approval is gained travel to India in June and October to collect the 3spot fly and weevil and bring back to NZ. If no 3rd party approval can be gained then the project will stop at this point.	By 31/10/2021 or 31/10/2022	MWLR to provide a report on progress of approvals and importation	\$85,000	
11	Conduct host range testing of the fly and weevil in containment. (This is a stop/go point if the host testing results show the fly and weevil are not host specific enough for release the project will stop here)	By 31/03/2022 or 31/03/2023	MWLR to provide a report on results	\$70,000	
12	If host testing produces positive results, then apply to the EPA for release of the 3spot fly and/or weevil.	By 31/12/2022 or 31/12/2023	MWLR to provide a report on results of EPA application	\$64,000	<b>21-22 Year 4 Total cost will be \$155,000 + GST</b>
13	If EPA approves release, then travel to India in June and October to collect the 3spot fly and weevil and bring back to NZ for rearing or direct release. (If EPA does not approve release then the project will stop at this point.)	By 31/10/2023 or 31/10/2024	MWLR to provide a report on progress of approvals and importation	\$50,000	<b>22-23 Year 5 Total cost will be \$64,000 + GST</b>
14	Rear insects where possible and apply to MPI for direct release. Make at least one field release of at least one agent which will include a field day	By 31/03/2024 or 31/03/2025	MWLR to provide reports and attend field day	\$70,000	
15	Attend or Zoom biannual meetings	By 30/06/2024 or 30/06/2025	MWLR to provide reports and invoices on completion of milestones	\$17,300	
16	Provide a final report on the project	By 30/06/2024 or 30/06/2025		\$11,000	<b>Year 6 or 7 Total cost will be \$148,300 + GST</b>
<b>Start Date: 20<sup>th</sup> July 2018</b>				<b>Completion Date: 20<sup>th</sup> June 2024 or 2025</b>	<b>\$410,650</b>



**TITLE:** Herbicide Operation

**ID:** A1377475

**From:** Lisa Forester, Biodiversity Manager

**Authorised by** Jonathan Gibbard, Group Manager - Environmental Services, on date 05  
**Group Manager:** November 2020

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### Executive summary/Whakarāpopototanga

From Biosecurity and Biodiversity Working Party meeting, 9<sup>th</sup> September 2020, FIF Dune Lakes Herbicide Operation (Item 7.0)

#### Agreed Action Point:

- Review herbicide plan in light of new weed found in some of the lakes – Biodiversity Manager

This report provides results of proposed Te Hiku lakes herbicide operations funded under the FIF Dune Lakes Programme and provides a review of options for use of the remaining herbicide after herbicide deployment was dropped for two of the three initial treatment lakes.

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### Recommended actions

- That the report “Herbicide Operation” is received and further working party updates are provided as this programme proceeds.
- 

### Background/Tuhinga

During spring 2020 three Far North lakes - Ngakeketo, Waiparera and Ngatu, were scheduled for treatment with the herbicide Endothall in the form of Aquathol K to eradicate South African oxygen weed (*Lagarosiphon major*) and hornwort (*Ceratophyllum demersum*).

Northland Regional Council had applied successfully to the EPA (Environmental Protection Authority) for permission to treat these three lakes in a single dose rather than quarter lake treatments which are permitted. It is the first time such permission has been granted in NZ and significantly reduced project treatment costs.

EPA permission controls require that a baseline survey of submerged native and pest plant percentage cover is undertaken at least five days prior to operations using this herbicide. Similar surveys are undertaken by NIWA using LakeSPI (Submerged Plant Index) as part of Council's Annual Lake Ecological Monitoring programme for priority lakes in Northland usually at no less than 5 yearly intervals. Reassessment of baselines by NIWA, postponed due to Covid-19 lockdown in autumn, was undertaken at all three treatment lakes in early September, one week before work started.

The results of the survey showed that there had been shifts in weed density in all three lakes. The single weed species in Lake Ngatu, South African oxygen weed, had become less dense, possibly due to improving water quality. However, in Lakes Waiparera and Ngakeketo, egeria oxygen weed, which cannot be eradicated with herbicide, was displacing hornwort in Ngakeketo and both hornwort and South African oxygen weed in Waiparera. This was an unexpected change particularly in Ngakeketo where hornwort had been the dominant lake plant. As a result of these findings NIWA advised that

treating Ngakeketo and Waiparera would achieve little result other than to create more space for egeria to dominate and they recommended that the operations were dropped from the schedule. Council therefore proceeded with the Lake Ngatu Aquathol K operation and put the Waiparera and Ngakeketo operations on hold, pending review.

Over 8-10 September Lake Ngatu was treated successfully and the South African Oxygen weed appears to have died although it is too early to predict eradication success.

Consideration for use of the remaining herbicide included the following options:

- Proceed with Ngakeketo Operation against NIWA advice risking total dominance of available lake habitat by egeria oxygen weed;
- Cancel herbicide operation at Ngakeketo and Waiparera resulting in stockpile of unused herbicide;
- Sale of herbicide (Cost approx. \$82,000); and
- Storage of herbicide for use in another Northland lake – several lakes with target plants are available.

These alternatives required consultation with project co-funders MfE. During discussion MfE indicated their preferred plan is cancellation of the two herbicide operations and use of the herbicide in another lake. Storage of the herbicide is strictly controlled, and council must now find another storage facility. Investigations are underway.

On 29 September the Biodiversity FIF Lakes Team and NIWA met with Far North iwi lake owners of Waiparera and Ngakeketo. At this hui iwi supported NIWA's recommendations to cancel herbicide operations in both lakes and concentrate on other ways of improving water quality such as fencing and pest fishing. There was also interest in raising the profile of other lakes in the Te Pahi area including actions and education. The other NIWA recommendation to investigate the use of the left-over herbicide elsewhere in Northland, especially Poutō, was also supported by iwi.

Preliminary investigation of other Northland lakes for treatment with Aquathol K is underway. Lakes that are known to contain the target species (hornwort or African oxygen weed) include lakes on the table below. Two of these lakes have been considered in the past and were discounted, whilst the two Poutō waterbodies have recently discovered hornwort incursions. The Unamed Poutō lake is DOC owned and has a < 1% cover of Egeria oxygen weed which Aquathol has little effect on. An option is for DOC to pre-treat this lake with diquat herbicide to knock both weeds back before Aquathol K treatment for the hornwort and follow up with diver removal of remaining Egeria. The Mt Camel water bodies will require field survey and more information before a decision can be made. Use of the herbicide in any of these lakes will require landowner, iwi and community consultation.

Lake	Owner	Size (ha)	Av Depth (m)	Weed/s	Cover	Notes	Suitable?
Camel North	pvte	1.82	~ 1	Hornwort	High	Not fully surveyed, field work needed	? likely
Camel South	pvte	14	~ 1	Hornwort	High	Not fully surveyed, field work needed	? likely
Egg (Poutō)	pvte	1.36	7			Surveyed	Yes
Unamed (Poutō)	DOC	2.8	5.4	Hornwort	High	Surveyed. DOC is interested in being	Yes

				Egeria (very low levels – hand pick)		a partner and covering deployment cost.	
Waimimiha North	pvte/lwi	2.2	~2	Hornwort	High	Discounted as discharges to beach	No
Kihona	lwi	7.8	8.3	Hornwort	Med	Discounted as contains Critically Endangered native plants	No

The lakes which are candidates for Aquathol treatment all have high weed densities meaning that they are not suitable for a single lake treatment due to the risk of a mass weed dieback and deoxygenation. These lakes may therefore require up to four quarter lake treatments at maximum (5 ppm) dosage, though based on past Northland experience two dosages should be effective. Calculations checked by NIWA have shown that there is sufficient herbicide to complete the operations at four doses, though further field survey on the Mt Camel lakes is required.

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### Attachments/Ngā tapirihanga

Nil

**TITLE:** Biosecurity Annual Report

**ID:** A1382133

**From:** Don McKenzie, Biosecurity Manager

**Authorised by** Jonathan Gibbard, Group Manager - Environmental Services, on date 05  
**Group Manager:** November 2020

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### Executive summary/Whakarāpopototanga

The Biosecurity Annual Report is due by the end of November however this year the report has been delayed due to covid-19 and staff shortages in Biosecurity. A draft annual report is expected to be available for adoption by council in December. Preliminary results indicate that some activities were affected by the Covid-19 lockdown and there was an overall under expenditure of approximately \$474,000. However, despite the consequences of Covid-19 several targets have been met and over \$2M was granted by external funding agencies for biosecurity activities. In addition, the dedication and success of the Partnerships and Strategy Manager has been recognised at a national level and we celebrate Kane McElrea being awarded two highly coveted national awards for his services to biosecurity and our Northland communities.

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### Recommended actions

1. That the Biosecurity and Biodiversity working party note the update on the Biosecurity Annual report 2019-2020
  2. Note that staff intentions are to provide a draft of the full Annual report to the working party members on the 27<sup>th</sup> November and request feedback by the 4<sup>th</sup> December.
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### Background/Tuhinga

The Northland Regional Council (council) is the management agency responsible for developing and implementing the Northland Regional Pest and Marine Pathway Management Plan 2017-2027 in accordance with the Biosecurity Act 1993 (hereafter referred to as the Pest Plan). The Pest Plan is a combination of the eradication or effective management of specified pests (or groups of pests), and a marine pathway plan is designed to prevent and manage the spread of harmful marine organisms via boat hull fouling within Northland coastal waters.

An Operational Plan is prepared and reviewed annually as a requirement of the Biosecurity Act 1993 (section 100B). It describes how the Pest Plan will be implemented for a given year. Council has a statutory requirement under the Act to report on progress in implementing the Pest Plan, within five months of the end of the financial year.

This Annual Report on the Operational Plan 2019-2020 is the second produced under the 10 year Pest Plan. The report notes progress made against aims, objectives and Key Performance Indicators (KPI's) contained in the Operational Plan and expands on these where appropriate. Last year's Annual Operational Report is attached as an example.

A combination of factors which include additional pressure placed on key staff during and subsequent to Covid-19 to respond to new funding bids, and staff administration shortages has resulted in a delay in completing the draft of the Annual Report for council this year. It is expected a copy will be available to the working party on the 27<sup>th</sup> November and feedback sought by 4<sup>th</sup> December. It is proposed that a workshop with council on the Annual Report be held between 4<sup>th</sup> and 15<sup>th</sup> December, prior to the council meeting. The document will not be able to be included in the council agenda for adoption until the December meeting, however, while Council should of

course seek total compliance with statutory requirements, there are no statutory consequences for the late submission of an annual report on an operation plan.

Preliminary data for the report has been collated and is in the process of being reviewed for accuracy. A summary of several report items follow:

### **Financials**

The preliminary financial statement shows that the total biosecurity budgeted expenditure for 2019-2020 was **\$6,734,916**. This was an operational surplus due to Covid-19 of **6.6%** or **\$474,049** as at 30 June 2020. The lockdown of contractors and suppliers over that period meant that some targets for the year were not met, particularly in pest plant activities.

### **Staff awards**

Despite the effects of Covid-19 there were also some remarkable achievements which was highlighted by our Partnerships and Strategy Manager Kane McElrea being awarded two national awards. Kane won the coveted emerging leader category at the New Zealand Biosecurity Awards in November 2019, in recognition of his work in forging sustainable communities and iwi-led biosecurity programmes, particularly to help protect Northland's kiwi. Following this in May 2020 Kane was also awarded the Brookfield's Emerging Leader of the Year Award from the Society of Local Government Managers (SOLGM). This recognises Kane as someone under the age of 35 whose work has positively influenced community-based pest control initiatives.

### **Other preliminary results**

Turning now to other results, data collated thus far shows that Covid-19 resulted in a lower number of public enquires being received, 5,100 for the year compared with 6,836 in 2018-2019. In addition, approximately 23% fewer predator traps were provided to Northlanders for the year because of the lockdown. Diver survey of hulls was able to be maintained as this work fell outside the main Covid-19 period and data from the marine programme shows that 2,048 vessel hulls were surveyed – 48 more than the target of 2,000 for the year. Staff were also able to continue to train the public in weed workshops and in NZQA credits for pest management.

Staff also bid for and were awarded over \$2M in external funding during the year for work including the removal of wilding pines, control of Manchurian wild rice and Predator Free 2050.

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### **Attachments/Ngā tapirihanga**

Nil