

Moving from sustained predator control to eradication
*Te nuku atu i te pupuru i te maha o te kaikonihi kia iti, ki te ara
haepapa pūmau*

Collaborative Pathway Action Plan 2020-2025

Strategic context

The overall strategic direction for biodiversity in Aotearoa New Zealand over the period 2020-2050 is provided by [Te Mana o te Taiao \(Aotearoa New Zealand Biodiversity Strategy\)](#). The strategy's intention is to guide all those who work with or have an impact on biodiversity. The [Predator Free 2050 Strategy, Towards a Predator Free New Zealand](#), endorsed by Cabinet in 2020, sits under the umbrella of Te Mana o te Taiao as one of the core foundations. It comprises three areas – mobilise, innovate and accelerate, that describe how Aotearoa New Zealand will achieve the Predator Free 2050 goal to eradicate mustelids, rats and possums by 2050. Beneath the Predator Free 2050 (PF2050) Strategy sits [He Māhere Rautaki Whakakore Konihi, PF2050 5 Year Action Plan 2020-2025](#). This overarching action plan organises delivery of the PF2050 strategy into six pathways to help rationalise and focus the work required to achieve PF2050. These pathways are:

- *Mā ngā whānau, mā ngā hapū, mā ngā iwi e whakatau tō rātou kaitiakitanga* – **Whānau, hapū and iwi expressing kaitiakitanga**
- *Te whakatinana i ngā ture me ngā momo kaupapa here e tika ana mō te kaupapa* – **Supporting the kaupapa through legislation and policy**
- *He aronui, he aromataiwai, he aromātai i te rerekētanga* – **Measuring and assessing the difference we make**
- *Me whakaohooho, me whakamana ngā hapori kia mahi i te mahi* – **Communities taking action**
- *Te mātauranga, te mahi auaha, te whakapai* – **Advancing our knowledge, innovation and improvement**
- *Te nuku atu i te pupuru i te maha o te kaikonihī kia iti, ki te ara haepapa pūmau* – **Moving from sustained predator control to eradication**

These six pathways each have a series of milestones and measures for achievement, and together they can be thought of as providing stepping stones to the ambitious PF2050 goal. In 2020, national collaborative groups composed of multiple agencies, organisations and iwi were formed and named for each of the six pathways. The purpose of these groups is to understand and allocate across those involved the actions within these pathways to ensure that the collective PF2050 goals are being achieved. Each group has a Collaborative Pathway Action Plan (2020-2025) that:

- drives the national achievement of the PF2050 Strategy milestones and Interim Goals;
- describes the measures being used to monitor progress and achievement;
- represents a joined-up approach to securing resources and facilitating partnerships in a collaborative, non-competitive way.

These plans are intended to be living documents and as such are a work in progress. Accountabilities for lead agencies, timeframes and funding requirements are currently being explored by the collaborative groups and will be added to the plans once confirmed. It is important to note the impact that Covid-19 and subsequent lockdowns have had on planning and implementation timeframes. As such, many of the actions within the plans have had to be deferred. This is likely to continue to remain the case whilst the impacts of Covid-19 continue to be felt.

Moving from sustained predator control to eradication / Te nuku atu i te pupuru i te maha o te kaikonihī kia iti, ki te ara haepapa pūmau

This draft moving from sustained predator control to eradication Collaborative Pathway Action Plan was created by the collaborative group in July 2021, noting it is continually in development. It outlines the efforts which need to be made in the next five years in order to move from management in the form of (largely) sustained control of predators into an eradication focus. Loosely, this action plan is based around three themes each with its own milestones and associated actions:

1. System change
2. Information for decision
3. Delivery method.

This pathway aims to deliver a shared agenda to drive the work needed to enable PF2050 to move from sustained predator control to eradication. A strategic roadmap will be created, which will allow for prioritisation of eradication projects, based on several criteria. The “information for decision” ensures we have the right data and information to allow for assessment based on said criteria, ensuring the best investment decisions are being made. Modelling will be one of the tools in the basket, giving us the information to determine the greatest likelihood of success to compare eradication projects.

This pathway also focuses on ensuring all parties working towards PF2050 understand the work and capacity requirements, and develop a plan to scale up and address these. It is about identifying pathways for work which will help us deliver on the goal and making the pathways easier for our rangatahi/youth to access.

Regional collaborations between hapū, iwi, councils, DOC, community groups and private landowners/farmers will drive progress through developing shared local approaches to predator control. Lessons learnt at project level will be shared across the system to ensure we are operating effectively at a national level.

Context:

This plan outlines the work required to ensure we have a clear understanding of how we move from a model of sustained predator control to eradication. It outlines current knowledge (and gaps), and measures for success, as well as:

- What should happen
- The requirements for achieving the milestone
- When it should happen
- Priority of work
- Whether it needs funding
- Any dependencies
- Status update on the individual actions.

Themes:

The work is broken down into the three themes each with its own milestones:

- System change
- Information for decision
- Delivery method

Actions:

Actions describe the work required in order to fulfil a milestone. No actions are optional. Actions are predominantly scheduled until 2025, except those that are necessary to continue the engagement in data management. This reflects the increasing uncertainty in assigning timeframes beyond 5 years and the need to review progress for all actions by 2023.

Prioritisation:

Work has been prioritised using the following system;

Maintaining: Minimum effort required to ensure we maintain and defend current gains / build necessary foundations

Progressing: Work required to ensure we meet cabinet approved Interim Goals and make progress towards key intermediate outcomes in PF2050 National Strategy

Accelerating: Ensuring all outcomes and commitments within PF2050 Strategy are met in a way that satisfies the needs and requirements all stakeholders and our commitment to operating within the principles of the PF2050 strategy are uncompromised, setting up PF2050 up for the best chance of success and scaling.

Timeframe:

By when is this action necessary? Whilst the milestones aren't timebound, their measures of success are. Please note: Some of these plans were developed prior to the Covid-19 pandemic, thus timeframes for these plans do not take into account the impacts Covid-19 have had (and continue to have) on ability to achieve some of the actions outlined. Timeframes should therefore be held with this in mind. Additionally, as one plans actions are often dependent on actions/activities of other collaborative action plans, a need to defer in one plan can have a ripple effect on actions across plans.

Dependencies:

Does something need to happen in another workstream first for this action to be worked on? An appendix will show actions which need to be happening in parallel.



Collaborative Pathway Action Plan 2020-2025

Moving from sustained predator control to eradication

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Theme 1: System change

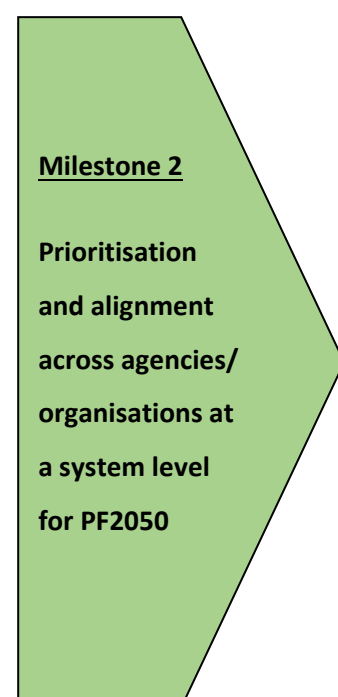
Milestone 1
Individual and organisational capability and capacity needs to be developed and then scaled up through collaboration to deliver on agreed and shared PF2050 outcomes

Requirements:				
<ul style="list-style-type: none"> Development of a dedicated professional sector, with clear career pathways, to meet the strategy's requirements. Supported by national training institutes/ organisations engaged to oversee eradication training and capability building (develop consistent national standards). 				
Action	Timeframe	Priority	Dependency	Status Update
1.1 Engage with national training institutes to oversee development of Predator Free training programme (developing consistent national standards)	June 2022	TBC	Language and Vision Mātauranga is important.	
1.2 Engage with potential employers to support on-the-job training and learning. This includes regional councils, contractors, landscape projects and apprenticeship providers	From June 2022	TBC	Potential employers are supported to employ apprentices and unqualified personnel with potential.	Eradication and predator suppression is not competitive with forestry and other sectors with young people
1.3 Review eradication methodologies, programmes and new technology after 2025 to identify future capacity requirements: <ul style="list-style-type: none"> Develop report on longer term future capacity needs across the system (e.g OSPRI work) Create continuity of this work via clear work programme and collective alignment to provide transparent business continuity and investor confidence 	January 2026	TBC	Will cross over heavily with Milestone 3. Willingness of agencies and landscape projects to share learnings in safe environment.	
1.4 Create visibility of pipeline of projects and work across the system to align needs, timing and resources/skills, and provide security of employment longevity through the Predator Free Project Readiness Tool	TBC	TBC	Dependency with strategic roadmap. Dependant on Predator Free Project Readiness Tool being adopted nationally.	
1.5 Promote career paths within tertiary education providers, marae, schools etc (particularly in areas identified above)	From July 2022	TBC	Dependent on 1.4, above. Dependency with both <i>Whānau, hapū and iwi expressing kaitiakitanga and rangatiratanga</i> group, and <i>Communities Taking Action</i> group	
Measures:				
<ul style="list-style-type: none"> A capability and capacity Plan, that represents the sector and other collaborative groups, is approved by the governance team and maintained as a living document Recruiters have multiple applicants to consider for all roles 				

Milestone 1
Individual and organisational capability and capacity needs to be developed and then scaled up through collaboration to deliver on agreed and shared PF2050 outcomes

Requirements:				
<ul style="list-style-type: none"> Development of a dedicated professional sector, with clear career pathways, to meet the strategy's requirements. Supported by national training institutes/ organisations engaged to oversee eradication training and capability building (develop consistent national standards). 				
Action	Timeframe	Priority	Dependency	Status Update
1.6 Scope (current, future, gaps) the capacity and capability requirements required to transition from suppression to eradication (i.e. a Capability and Capacity needs analysis) to inform the scale of eradication projects that can be delivered currently, and what is needed to achieve PF2050 * Quality threshold needed for eradication shift.	TBC Will have to update as new tools are developed	H	Dependency on conversations with <i>Advancing our knowledge, innovation and improvement</i> group to understand future technology and capability requirements.	Landscape eradication projects and regional councils are struggling to recruit eradication specialists.
1.7 Complete an assessment of existing capacity, capability and infrastructure, where this is located and where the gaps are located to confirm minimum skill requirements (a self-assessment tool is required as part of this package)	TBC	H		
1.8 Identify, design and implement the plan to address gaps	November 2021 and then ongoing	H	Dependency with <i>Communities Taking Action</i> group (specifically the Predator Free NZ Trust), regional councils and landscape eradication projects.	Would be phased (a lot would fall out of 1 and 2). Reiteration will be important. "Host" organisations are lacking.
1.9 Identify career pathways available (e.g universities, in-house training, national certificates, Sentinel a nuku) to address the gaps assessed in the gap analysis above.	January 2022	TBC	Reliant on training programmes (<i>Communities Taking Action</i> group).	We are currently working in sustained space rather than eradication.
Measures:				
<ul style="list-style-type: none"> A Capability and Capacity Plan, that represents the sector and other collaborative groups, is approved by the governance team and maintained as a living document Recruiters have multiple applicants to consider for all roles 				

Theme 2: Information for decision



Requirements:				
<ul style="list-style-type: none"> • A strategic roadmap that describes prioritised implementation on a staged and scaled approach and the roles of entities to achieve it • Delivery is inextricably linked to funding • Entities are funded and committed to deliver and maintain the gains achieved • Organisational alignment to work towards target species requires understanding each other's expectations/outcomes • Understanding the effective regulatory or non-regulatory mechanisms for delivering aligned predator control 				
Action - National	Timeframe	Priority	Dependency	Status Update
2.3 Predator Free Project Readiness Tool - Using the map and information from above, establish and maintain a national tool to support the development of a national optimised landscape investment picture based on needs of all parties involved. This will include the underpinning principles for investment and decision making	Now	M	Dependency with <i>Measuring and assessing the difference we make</i> group – how to choose platform. Build on current DOC prioritisation principles	
2.4 Roadmap for delivery - Create a strategic roadmap for prioritised eradication projects: a) Statutory agencies collaborate with others to establish a national predator control workplan (using all methods) that suppliers can invest in to ensure sustained control continues until eradication can be achieved. b) Prioritise eradication research to learn/share knowledge to be more effective together	Now	H	Dependency with <i>Advancing our knowledge, innovation and improvement</i> group for part b) to help develop prioritised research plan in this space and <i>Whānau, hapū and iwi expressing kaitiakitanga and rangatiratanga</i> group	
2.1 Current state legislation and regulation - Understand the current use of legislative and regulatory tools, such as national and regional pest management plans, and their possible alignment to facilitate and protect nationwide planning and delivery	By end of December 2021	M	Dependency on the <i>Supporting the Kaupapa through Legislation and policy</i> group – “problem definition” This action is all currently focused on current state - have kept this as this, but need to ensure that gap analysis and future redesign system work is captured elsewhere	Building on current approach to sustained predator control
2.2 Current state activity - National organisations/agencies involved in facilitating or delivering predator control populate operational detail related to 1 to focus where step change from control to eradication will occur. Key questions to answer include: where are you currently working/planning to work? what are the challenges others could help you with? One deliverable will be a map of all existing and pending work on shared platform. Capture this spatially and record in the Predator Free Project Readiness Tool	By May 2022 and ongoing	H	Tool/map is developed and hosted and accessible	Online steering group could be used
Measures:				
<ul style="list-style-type: none"> • Current state legislative and regulatory tools are mapped as a framework • Current state activity is articulated and expressed in Predator Free Project Readiness Tool • Regional delivery approaches and associated plans are co-constructed for each project • One spatial map is developed as a shared resource to support collaboration and links to the Predator Free Project Readiness Tool 				

Milestone 2

Prioritisation and alignment across agencies/ organisations at a system level for PF2050

Requirements:				
<ul style="list-style-type: none"> • A strategic roadmap that describes prioritised implementation on a staged and scaled approach and the roles of entities to achieve it • Organisational alignment to work towards target species requires understanding each other’s expectations/outcomes • Understanding the effective regulatory or non-regulatory mechanisms for delivering aligned predator control 				
Action - Local	Timeframe	Priority	Dependency	Status Update
<p>2.5 Region specific operation design - Implement optimised delivery and governance model for this work, based on the roadmap:</p> <ul style="list-style-type: none"> a) Mana whenua, communities and other parties at project decision making table b) Resource aggregated and strategically implemented at a project level c) Co-designed mechanisms to foster local collaboration are established d) Include funding options for each project – current, alternative, new funding sources 	During 2022, depending on prioritisation tool, and should be iterated as required	H	<p>Based on governance findings through Leadership Group/ reviews</p> <p>Dependency with Te Mana o te Taiao/Aotearoa New Zealand Biodiversity Strategy</p>	<i>Communities taking action</i> group dependency (comms plan)
<p>2.6 Monitoring alignment - Align project monitoring programmes nationally to share learnings and pest monitoring data. Capture learning in the Predator Free Project Readiness Tool for sharing</p>	As tools become available	M	Any collection tool from <i>Measuring and assessing the difference we make</i> group should be collecting this information at same time, so no double up	Captured through data management
Measures:				
<ul style="list-style-type: none"> • Current state legislative and regulatory tools are mapped as a framework • The one spatial map is developed as a shared resource to support collaboration and links to the Predator Free Project Readiness Tool 				

Milestone 3

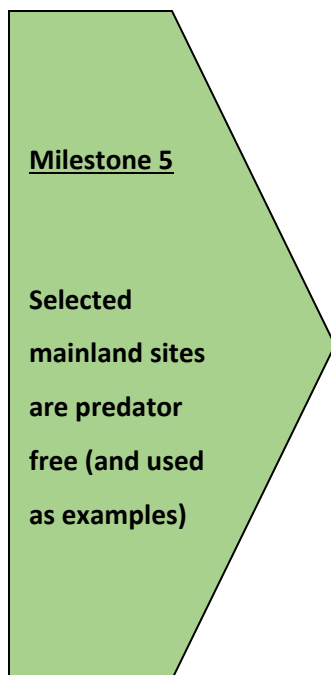
National scenario modelling*, regional plans and national collaborative shared agendas are integrated to support a national investment plan that drives prioritisation of PF2050 eradication work and operates on an adaptive management model

Requirements:				
Action	Timeframe	Priority	Dependency	Status Update
<ul style="list-style-type: none"> • Modelling to determine the greatest likelihood of success to compare eradication projects • Understanding link to ecosystem success/sustainability and climate change • Understanding risks and unintended consequences • Evaluation results in adaptive management 				
3.1 Establish the consistent principles for scenario modelling eradication projects. a) Capture/collate the data for modelling b) Complete the modelling	October 2021	H	Dependency on prioritisation of this task – the principles for scenario modelling need to be established before Milestone 3 number 2 can be progressed. Dependent on other steps in milestones before! Links to the 'rolling 5 yr forecast' in 3.3	Captured by the <i>Measuring and assessing the difference we make</i> group Agreed terminology
3.2 Analyse projects in Predator Free Project Readiness Tool to help inform likelihood of success, including defensibility through aligning projects to expand to defensible boundaries	Ongoing	H	Cross over with <i>Communities taking action</i> group and <i>Whānau, hapū and iwi expressing kaitiakitanga and rangatiratanga</i> group Regional priorities captured in Milestone 2. Agreement that the landscape readiness tool is fit for purpose.	Use readiness tool. Needs to be socialised effectively with the other groups
3.3 Use the Predator Free Project Readiness Tool to record the regional projects by the phase each project is in: (1) scope, (2) design, (3) implementation to, (4) sustain/defend and show this in the Predator Free Project Readiness Tool with decisions recorded at each phase. Use this to inform a rolling 5 year forecast.	Ongoing	H	Aligns with policy setting. Will rely on governance. Also interconnected with Te Mana o te Taiao/Aotearoa New Zealand Biodiversity Strategy. Need to ensure we are maintaining gains in gated process to enable projects to be staged nationally	
3.4 Ensure learnings and measures of success are captured in the Predator Free Project Readiness Tool to help inform future planning. a) Investigation into how to capture eradication benefits for all sectors of society and value sets, including: - Wairua and mauri of te taiao - Carbon benefits - Supply chain benefits - Public health benefits - feels like a comms action and could be a distraction to this group but it could be a useful opportunity to articulate or capture wider benefits that demonstrate the value of eradication	Ongoing	M	Reliant on the work of the <i>Measuring and assessing the difference we make</i> group to understand how to measure benefits. Dependency on <i>Whānau, hapū and iwi expressing kaitiakitanga and rangatiratanga</i> group and <i>Communities taking action</i> group Dependent on landscape project readiness tool. (Ability to switch layers on and off)	
Measures:				
<ul style="list-style-type: none"> • A fit for purpose model has been created (using captured data) and is being maintained, which is helping with on investment decision making (this model will need some really careful thought). 				

*Modelling to determine the greatest likelihood of success to compare eradication projects

Milestone 4
 Recognise sustained predator control buys native species and ecosystems time while eradication technologies are developed

Requirements:				
<ul style="list-style-type: none"> Identify key species populations requiring protection Understanding required predator suppression levels needed to protect target threatened species Understand required return times/triggers for predator control Protecting the investment through ecosystem-based approach 				
Action	Timeframe	Priority	Dependency	Status Update
4.1 Utilise Predator Free Project Readiness Tool to understand high-value sites on basis of need for sustained control where eradication is not yet feasible	Now and ongoing	Accelerating	Reliant on existing Department of Conservation data Cross over with Milestone 2, Action 2.3	Existing tools in place for prioritising DOC Tiakina Ngā Manu programme. Close liaison between OSPRI and DOC to align work. Need to maximise synergies with others.
4.2 Map all predator control work being undertaken across country to enable synergies between parties to be identified and recorded	TBC	Progressing to Accelerating		
4.3 Encourage and support complementary restoration and conservation management measures to be carried out to provide healthy habitats – as identified as synergies in the readiness tool e.g. weed control, freshwater management and restoration planting	TBC	Accelerating	Reliant on work with the <i>Communities taking action</i> group to ensure story is told of importance of these complimentary measures, and ensure commitment to these as well as the PF2050 kaupapa Reliant on <i>Supporting the Kaupapa through policy and legislation</i> group system review	Strong iwi and community aspirations to see all aspects of forest/ecosystem health tackled holistically. Essential for long term to have community buy-in to biodiversity and other outcomes at place not just focused on predator removal
Measures:				
<ul style="list-style-type: none"> By 2025, integrated projects recognising the suite of landscape-scale restoration needs (predator control, weed control, freshwater management, restoration planting) are playing out on the ground Indicator species for biodiversity are increasing as measured across sites 				



Requirements:				
<ul style="list-style-type: none"> • Buffers around sites needed • Have to stop the silos of organisations/agencies – agnostic of land tenure 				
Action	Timeframe	Priority	Dependency	Status Update
5.1 Ensure a predator reinvasion planning is included in feasibility plans i.e. inform a reinvasion strategy through the spatial tool to ensure priority sites are selected based on pre-determined criteria including ability to defend from reinvasion, investment readiness, alignment with interim goals, social licence to operate, capability and capacity, alignment with areas containing high-risk species. a) Biosecurity focused legislation and policy relevant to specific areas recorded in the readiness tool allows for discussion of relevance for each situation. b) Readiness tool allows for identification of where effective suppression is required e.g habitat manipulation, developing effective “firebreaks” around secured areas	TBC	Accelerating	Cross over with Milestone 2 number 3 Cross-over with <i>Whānau, hapū and iwi expressing kaitiakitanga and rangatiratanga</i> group (regarding biosecurity) <i>Supporting the Kaupapa through policy and legislation</i> group dependency regarding “problem definition” regarding policy, also need to think about reinvasion protocol – who’s responsible for managing them? <i>Communities taking action</i> group to help communicate - biosecurity measures must not be too invasive for the public and must detect and report invasion fast	
5.2 Create exemplars/case studies to share* what’s learnt etc.. * Storytelling to and for public so they understand the distributed focus on and links with biosecurity and restoration	TBC	TBC	Interdependency with <i>Measuring and assessing the difference we make</i> group: - Long-term (e.g utilising dashboards - this could be through working with comms to have a consistent story update for all eradication projects	
Measures:				
<ul style="list-style-type: none"> • By 2024, a reinvasion strategy created for priority mainland sites. • By 2025, every region across New Zealand has exemplar projects within their regional boundaries 				

Theme 3: Delivery method

Milestone 6
 Regional eradication plans are developed with hapū, iwi, central and local government agencies and community groups to implement the national roadmap

Requirements: <ul style="list-style-type: none"> • Need to mesh with plans the regional community groups might lead 				
Action	Timeframe	Priority	Dependency	Status Update
6.1 Build on learnings gathered in pilot areas to inform development of regional action plans	TBC	Progressing	With <i>Supporting the Kaupapa through Legislation and Policy</i> group and <i>Communities Taking Action</i> group.	
6.2 Regional plans co-designed, reflective of regions’ communities	TBC	Accelerating	National scenario modelling dependency PFNZ Trust is a member of the <i>Communities taking action group</i> but will play an important role here	
Measures: <ul style="list-style-type: none"> • By 2025, regional plans exist for each of the regions and are being implemented and monitored • Continual learning is helping to inform reiterations of the plans 				

Milestone 7
A focused island predator eradication programme is established for uninhabited Crown-managed islands

Requirements:				
<ul style="list-style-type: none"> • Breakdown between uninhabited and inhabited islands necessary due to inclusion of additional social factors to consider • Understanding of values, threats and risks • Understanding of strategic roadmap and its relationship to other benefits 				
Action	Timeframe	Priority	Dependency	Status Update
7.1 Spatial stocktake of islands (including ownership, habitation, pest status, defensibility and biodiversity values) is completed, allowing breakdown into prioritised work plan for uninhabited offshore islands	July 2021	Progressing	Land Information New Zealand (LINZ) and Department of Conservation data on Crown land. Cross reference with CROSL (Central Record Of State Land)	In progress
7.2 Develop an optimised island eradication strategy which takes into account defensibility, feasibility, value of lessons to be learnt, easy wins, opportunity to build capability and develop tools and technologies, tangata whenua engagement and geographical spread	June 2021	Accelerating	Number 1 above	In progress
7.3 Refresh landscape readiness tool and five-year rolling plan with island projects identified islands strategy	Late 2021	Progressing	Number 2 above	
7.4 Support project plans being implemented based on prioritisation (regarding interim goal)	2022 onwards		Number 2 above	
7.5 Readiness tool allows for identification of where effective suppression is required at points of departure	TBC	TBC		
Measures:				
<ul style="list-style-type: none"> • By 2025, we will have eradicated all mammalian predators from New Zealand’s uninhabited offshore islands • A pipeline of prioritised projects is developed and captured in the landscape readiness tool 				

Milestone 8
Sustained predator control is moving to eradication across all land tenures and ecosystems (implement the multiple plans)

Requirements:				
<ul style="list-style-type: none"> Protecting investment – monitoring and compliance Connected with Aotearoa New Zealand Biodiversity Strategy / system work Existing suppression work is maintained until there is the ability to eradicate at landscape scale (e.g maintaining buffer areas of low predator numbers for a time to help protect eradication/pest free areas). 				
Action	Timeframe	Priority	Dependency	Status Update
8.1 Coordination of implementation of the 'strategic roadmap' plan through the Landscape Project Readiness Tool	October 2021	TBC	Dependency with <i>Measuring and assessing the difference we make group</i> Dependency on adoption of the Landscape Project Readiness Tool	
8.2 Maintain current state of project stages on the shared spatial map	TBC	TBC		
8.3 New tools and methods are shared with project leads in the Landscape Project Readiness tool.	TBC	TBC	Dependency on tool development in <i>Advancing our knowledge, innovation and improvement group</i> . Cross over with Milestone 7 number 5	
8.4 Identify on the shared map where projects are using new tools to share learning and development	TBC	TBC		
Measures:				
<ul style="list-style-type: none"> By 2025, we will have demonstrated that predator eradication can be achieved in areas of mainland New Zealand of at least 20,000 ha and that these areas can be defended from reinvasion without the use of fences. 				