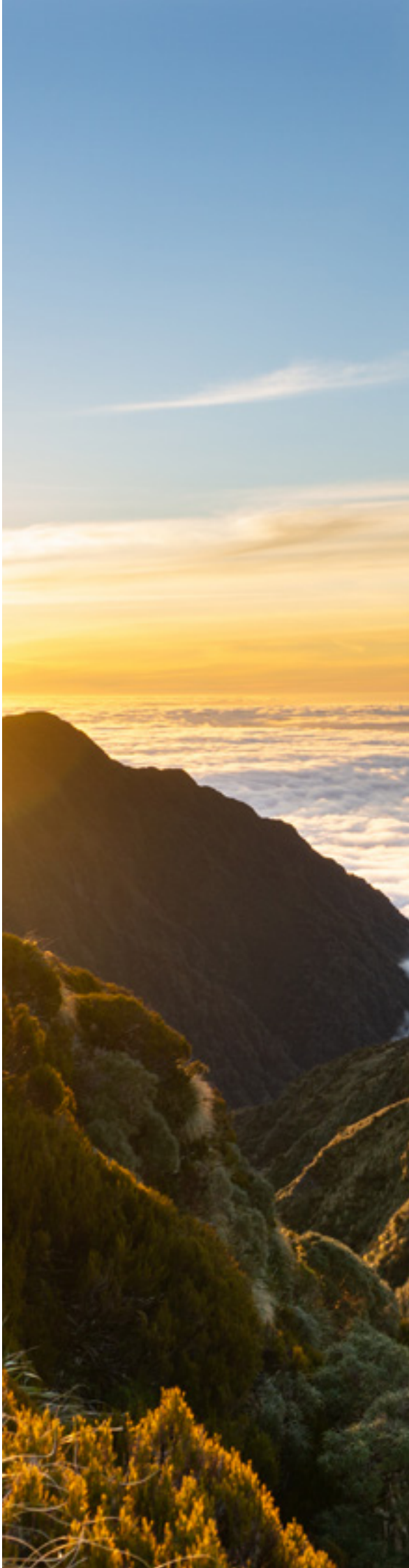
PREDATOR FREE 2050
TUIA TE TAIAO

Predator Free 2050

Strategy review discussion document

Te Kāwanatanga o Aotearoa
New Zealand Government



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Predator Free 2050: Strategy review discussion document

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South Westland. *Photo: Dylan Higgison*

He kupu takamua nā te Minita

Kia ora koutou katoa,

He mea taketake te aotūroa mō Aotearoa – hei wāhi taketake tēnei o tō tātou tuakiri ā-motu, hei tautoko hoki i tō tātou ōhanga, i tō tātou toiora, i tō tātou āhua noho hoki i te ao nei. Hei tō mai te aotūroa i ngā ahumahi tuatahi, hei whakaputu tūranga mahi hoki i waenga i ō tātou hapori, hei tō mai i te hunga tāpoi o te ao, hei whakapakari hoki i ngā ōhanga ā-takiwa. Kua paiaka hōhonutia tō tātou tuakiri hei tangata nō Aotearoa, ki tēnei whenua, me te aotūroa. Ki te kore tātou e tiaki i te aotūroa, ka ngaro te āhua o tō tātou āhua noho i Aotearoa.

I whakarewaina a Kaikohini Kore Aotearoa 2050 i te tau 2016, arā, he kaupapa whāinga matawhānui tēnei, ko tōna paetawhiti kia haepapatia te paihamu, te kiore me ngā momo toriura i Aotearoa. Ki te tutuki tēnei whāinga ka tino piki te ora o te tini o ngā momo koiora māori e noho mōrea nei, kua tū ā-korehāhā rānei, i tēnei wā tonu. Ko te whakapikinga oranga nui rawa tēnei ekenga taumata mō ō tātou momo koiora māori, mai o te taenga mai o ngā kaikonih tuatahi.

I a tātou e mahi nei ki te whakatutuki i tēnei whāinga paetawhiti kua puta kē mai ētahi hua papai mō te aotūroa, – te akiaki i ō tātou hapori mā ngā mahi ā-takiwā. Waihoki te kōkiri i ngā mahi auaha hei whakawhānui i ngā taputapu hei whakamahi me ngā ara hei whai, me te hanga wāhi haumaru mō ō tātou momo koiora māori, nā ngā mahi i whakahāngaitia ki te kaupare kaikonihi, me ngā moutere kaikonihi kore. Hei mea taketake ēnei mahi mō te hanga ao toitū mō tō tātou kanorau koiora.

E whakamoemiti ana au ki te huhua o ō mātou hoa mahi, ngā iwi me ngā hapū, me ō tātou rōpū hapori e whakatutuki nei i tēnei whāinga. Ka taea e tātou katoa tēnei mahi te kawe, hei painga mō te aotūroa.

E ū ana te Kāwanatanga ki te mahi tahi ki ētahi atu ki te whakapiki, ki te tautiaki, me te wawao i tō tātou taiao aotūroa. Tēnei au te pōwhiri atu nei i a koutou kia tāpaetia mai ngā mea hira, e ai ki ō koutou whakaaro, mō te rautaki Kaikonihi-Kore 2050 meāke ka whakahoutia.

Ngā mihi nui,

Hon Tama Potaka
Minita Whāomoomo

Ministerial foreword

Kia ora koutou katoa,

Nature is central to New Zealand – it's part of our national identity and supports our economy, wellbeing and way of life. It supports productive primary industries, brings jobs to our communities, draws visitors from around the world and boosts local economies. As New Zealanders, our connection to this land and nature runs deep. If we don't look after nature, we risk losing the New Zealand way of life.

Launched in 2016, the Predator Free 2050 programme has an ambitious goal to eradicate possums, rats and mustelids from our country. Achieving this goal will drastically improve conditions for the thousands of native species that are currently threatened or at risk of extinction. This would mark the most significant improvement for our native species since the predators first arrived.

In the pursuit of this long-term goal, we are already making significant gains for nature – mobilising communities to take action through local efforts, incentivising innovation to expand our toolbox, and creating safe spaces for our native species through targeted predator control efforts and predator free islands. These efforts are crucial in building a sustainable future for our biodiversity.

I want to acknowledge the efforts to date from a range of partners, Iwi / Hapū and community groups in pursuit of this goal. Together, we can all work to achieve better results for nature.

The Government is committed to working with others to enhance the care and protection of our natural environment. I invite your views on what is important to you to see in the revised Predator Free 2050 strategy.

Ngā mihi nui,

Hon Tama Potaka
Minister of Conservation

Predator Free Wellington. *Photo: Ian Robertson Photography Limited, 2019*

What is Predator Free 2050 and why does it exist?

New Zealand's plants and animals are unique – most of them are found nowhere else on Earth. Our native species evolved separately from the rest of the world for millions of years. During this time, they developed unique characteristics, and now species like ground-foraging bats, giant carnivorous land snails and alpine-dwelling parrots all call New Zealand home. Without native land mammals, wildlife did not develop defences to protect themselves against the predators that arrived with humans, including rats, stoats and possums. These introduced mammals have taken a disastrous toll on native wildlife.[1] By one calculation, rats, stoats, possums and other predators kill approximately 25 million native birds every year.[2] New Zealand has the highest proportion of threatened species anywhere in the world.

The Predator Free 2050 (PF2050) programme has an ambitious goal to eradicate rats, mustelids (weasels, stoats and ferrets) and possums from New Zealand by 2050 so that nature and communities can thrive. PF2050 envisions a bright future where the endless cycle of predator control is broken and New Zealand is free of introduced predators forever. It aims to significantly change the way that predators are managed in New Zealand, moving from ongoing control to coordinated and progressive nationwide eradication.

The predator free goal has captured the public's interest and driven communities to take action in ways that no previous conservation campaign ever has. More than 8,000 volunteer groups from Northland to Stewart Island/Rakiura now upload their trapping results to a central database.[3] There are 163 community groups in Wellington alone – more groups than suburbs in the city.

Achieving this ambitious goal means working in partnership with Iwi/Hapū. Tangata whenua bring distinctive knowledge that is born from their relationships with the land and mātauranga Māori (Māori knowledge), which contributes both old and new approaches that can help to achieve PF2050. Central and local government, non-governmental organisations (NGOs), philanthropists, scientists, innovators, businesses, fenced eco-sanctuaries, schools, landowners, and communities right across New Zealand also play a crucial role in the progress towards PF2050. Thanks to their efforts and the work of thousands of individuals across the country, we are creating safe spaces for the threatened native species that could otherwise face extinction in less than two generations.

PF2050 alone cannot solve all our biodiversity challenges. The programme is part of broader efforts to protect and restore nature, as set out in Te Mana o te Taiao – Aotearoa New Zealand Biodiversity Strategy (ANZBS). The ANZBS is the umbrella strategy that guides all the work being done to address the five key drivers of biodiversity loss – invasive species, land- and sea-use change, climate change, pollution, and direct exploitation. PF2050 works closely alongside programmes like the Wild Animals Management Programme,[4] Conservation Dogs Programme[5] and species-specific recovery programmes like Kākāpō Recovery[6] under the umbrella of the ANZBS.

1 King CM. 2017. Failed proposals to import the mongoose, pine marten, Patagonian fox and other exotic predators into New Zealand. Journal of the Royal Society of New Zealand. 49:3–15.

2 Hill G. 2012. Why I enjoyed the Rena disaster. Forest & Bird. **blog.forestandbird.org.nz/why-i-enjoyed-the-rena-disaster**

3 **trap.nz**

4 **www.doc.govt.nz/wild-animals**

5 **www.doc.govt.nz/conservationdogs**

6 **www.doc.govt.nz/kakapo-recovery**

Purpose of consultation

It has been 5 years since the first national PF2050 strategy: *Towards a Predator Free New Zealand / Predator Free 2050 Strategy* and it is now time for a scheduled review.

PF2050 has seen huge progress thanks to the hard work of people all across New Zealand. Government, Iwi and hapū, businesses, NGOs, communities, and individuals all have a role to play in achieving the goal. We are seeking valuable input from New Zealanders to help us craft the strategy for the next 5 years. There are two areas we'd like your feedback on:

1. The new set of goals across our four focus areas to achieve by 2030. These will act as indicators of our progress and direct our efforts (see page 16).
2. The proposal to retain the current national target species list (possums, ship rats, Norway rats, kiore, weasels, stoats and ferrets). We will continue to advance our understanding of other mammalian predators (feral cats, mice and hedgehogs) (see pages 21–23).

This discussion document includes questions at the end of each section, to invite discussion and your responses (see page 24 for details on how to submit). Thank you in advance for sharing your perspective.

How your feedback will inform the strategy

DOC will listen to, analyse and summarise all your feedback, and share a report of what we heard. We will consider your input to refresh the PF2050 Strategy (2025–2030), including the refreshed 5-year goals and a target predator list. We are aiming to update the strategy by the end of the year.

A flock of pohowera/banded dotterels on Auckland Islands. *Photo: Jack Mace*

What has Predator Free 2050 achieved so far?

No other country has ever attempted a multi-species eradication across its entire landmass. That means there's no manual to follow and the PF2050 community must learn by doing. Since its inception, PF2050 has taught us a great deal about introduced predators and how to go about eradicating them. There is now a greater understanding of what works and what's going to need more effort.

As part of the 2020 strategy, seven ambitious interim goals were set for 2025 as indicators of progress. The table on page 9 shows the assessment of progress from our most recent progress report in 2023 – that we have already achieved one goal and are on track to achieve a further four goals.[7]

The next assessment of progress against these goals will occur later in 2025.

PF2050 has also supported pest management through innovation. In a little over a decade, many places have gone from having laborious lines of manually set traps to networks of smart devices that can tell a weka from a weasel and a rowi from a rat. These next-generation smart devices can attract pests with automated long-life lures and alert field staff when the job is done through interconnected satellite and radio networks. Thermal cameras that are fixed or mounted on drones can detect and identify any remaining or invading predators in larger areas.

PF2050 has also progressed the development of new toxin formulations and improved the precision of delivering existing toxins – in some cases, they are refined to target a particular species. The genomes of ship and Norway rats, stoats, and possums have been sequenced, and this knowledge is guiding the search for 'Achilles heels', or behaviours and preferences that can be exploited to target trap-shy individuals. The current understanding of the critical role of mātauranga is growing too as knowledge of indigenous solutions is more widely shared and appropriately used.

Predator control is happening across broader landscapes than ever before thanks to the efforts of the National Predator Control Programme, mana whenua, community groups and regional councils. PF2050 projects are progressing at pace across a variety of habitats, growing crucial knowledge and community support, testing tools, and weaving together the mobilise and innovate phases of PF2050.

7 Department of Conservation. 2023. Predator Free 2050 biennial progress report - June 2023. Wellington: Department of Conservation. **www.doc.govt.nz/globalassets/documents/our-work/predator-free-2050/predator-free-2050-progress-report-2021-2023.pdf**

Interim goals for 2025

Goal 1	Suppression is increased by 1 million hectares.	
Goal 2	Predator eradication is achieved in unfenced areas of at least 20,000 hectares on mainland New Zealand and these areas are defended from re-invasion.	
Goal 3	All mammalian predators are eradicated from New Zealand's offshore islands.	
Goal 4	A breakthrough science solution is developed that can eradicate one mammalian predator species from the New Zealand mainland.	
Goal 5	Whānau and Hapū/Iwi are leading at least five eradication projects.	
Goal 6	Possums or mustelids are eradicated from a New Zealand city.	
Goal 7	Effective tools and knowledge are available to achieve predator eradication on farmland.	

Key

Case study 1

Predator Free Wellington

In November 2023, Predator Free Wellington[8] announced that it had successfully eliminated ship rats, Norway rats, stoats and weasels from Te Motu Kairangi / Miramar Peninsula. At this time, populations of native birds were up on average by 91% – tūī by an astonishing 141% – showing just how quickly native birds recover after predators are removed.

Ongoing success on Te Motu Kairangi / Miramar Peninsula is a community effort that relies on the support of 20,000 locals, including almost every business, school and kindergarten on the peninsula, as well as hundreds of volunteers and technical experts. The project is also supported by its founding partners – Greater Wellington Regional Council, Wellington City Council, Predator Free 2050 Limited, NEXT Foundation and Taranaki Whānui ki Te Upoko o Te Ika (Port Nicholson Settlement Trust).

Now, the vital biosecurity work to maintain these gains begins – constantly monitoring for any last survivors or reinvaders through the help of smart devices, detector dogs and the Miramar community. Phase 2 is currently underway, which includes expanding eradication to 14 more suburbs that are home to around 60,000 residents, including Wellington Zoo, Government House, Massey University and Wellington Regional Hospital.

As one of New Zealand's first multi-species urban eradication experiments, Predator Free Wellington's success has been significant. But like any innovation, it hasn't come cheap. The next big challenge is to drive down the costs of enabling and maintaining eradication and produce a method that is cost efficient and effective at eradicating predators from other urban centres. Predator Free Wellington has produced its first blueprint[9] for others to follow to achieve these same outcomes, but the challenge is to prove that it's replicable and scalable.

"When I heard they wanted to eradicate the whole peninsula I was happy to give it a go, but I never imagined we would see this amount of change. I never imagined I would have a pair of kārearea nesting 500 metres from my house."

Marcus, Seatoun resident and Predator Free Miramar volunteer

Kārearea / New Zealand falcon. *Photo: Andrew Walmsley*

8 **www.pfw.org.nz**

9 **www.pfw.org.nz/trapping/our-trapping-guides/our-guides-and-tips/our-urban-predator-free-blueprint**

Case study 2

Predator Free South Westland

Predator Free South Westland[10] is an ambitious project working to eliminate possums, rats and stoats from 107,000 hectares of forest, township and rural land. The area is bounded by the ocean and fast-flowing rivers, which provide natural barriers to help manage predator reinvasion, and contains the townships of Franz Josef / Waiau, Whataroa and Ōkārito.

Progress is being made to secure elimination following aerial 1080 and ground baiting operations in 2021 and 2022. Rat and possum numbers are now being detected at very low levels and work is continuing to overcome the challenge of reinvasion. Intensive surveillance that involves remote-reporting thermal cameras with artificial intelligence alerts rangers to any incursions or last survivors so they can be swiftly addressed.

In addition to advancing the understanding (and reducing the costs) of boundary defence, the project also offers a valuable research opportunity around clearing agricultural land – a major objective of PF2050.

People have already noticed an increase in bird life, particularly kākāriki / red-crowned parakeet, in South Westland, and camera records of kea, kakaruwai / South Island robins and ngirungiru / South Island tomtits have more than doubled. Around Ōkārito, sightings of threatened matuku-hūrepo / Australasian bitterns and rare mātātā / fernbirds have jumped significantly. This work is also helping to restore and improve the health of New Zealand's native forests through the reduction in predators eating leaves, shoots and branches, and over time we will see this reflected in a healthy forest canopy.

Kākāriki / red-crowned parakeet. *Photo: Leon Everett*

10 **predatorfreesouthwestland.nz**

Case study 3

Maraekōwhai project

The Maraekōwhai project is a collaborative predator control project with a commitment to the shared aspirations of protecting, restoring and reviving over 11,000 hectares of protected lands near the Whanganui Awa (Whanganui River).

In 1998, the Maraekōwhai Whenua Trust entered a Ngā Whenua Rāhui[11] kawenata (covenant) to protect their lands, which then led to five neighbouring kawenata being signed over a 10-year period. As part of the kawenata, pest and predator control, along with fencing and other mahi (work), has taken place.

Through Ngā Whenua Rāhui, the Maraekōwhai operational area employs seven tangata whenua contractors to carry out pest animal and pest plant control, which gives the indigenous biodiversity, taonga species and natural habitat an opportunity to regenerate and thrive.

Because these kawenata neighbour Whanganui National Park, biodiversity outcomes can be met over a larger area through the combined conservation efforts. The mahi carried out to date has allowed sustainable populations of North Island kōkako and kākā to be introduced here by the Maraekōwhai Whenua Trust.

Whanganui Awa. *Photo: Jason Taiaroa*

11 **www.doc.govt.nz/ngawhenuarahui**

A strategy for Predator Free 2050 (2025–2030)

The Department of Conservation Te Papa Atawhai (DOC) is responsible for setting the strategic direction for PF2050 and reviews the strategy every 5 years. The first strategy, *Towards a Predator Free New Zealand: Predator Free 2050 Strategy*,[12] was published in 2020 and is intended as a guide for all people and organisations playing a role in achieving this national goal, including three other national organisations with a predator free focus (Predator Free 2050 Limited, Predator Free New Zealand Trust and Zero Invasive Predators), as well as Iwi / Hapū, philanthropists, scientists, innovators, businesses, fenced eco-sanctuaries, schools, landowners, community groups and many more.

Looking back (2020–2025)

Towards a Predator Free New Zealand / Predator Free 2050 Strategy set out three actions for achieving PF2050:

1. **Mobilise:** Building support for the predator free goal and providing ways for people to be engaged in community action.
2. **Innovate:** Developing the new and transformational tools and techniques to eradicate predators.
3. **Accelerate:** Rolling out PF2050 across the country as fast as possible.

In the last 5 years, PF2050 has focused on mobilising support and building a community. Together, the many different conservation groups, agencies and sectors have rallied together, raised awareness, developed predator eradication capabilities, empowered communities to take action and grown the support that is needed to reach the PF2050 goal. Looking ahead, these efforts will need to continue, as support from New Zealanders is critical to achieving PF2050.

Innovation has also started to fill the critical gaps. The PF2050 community has created new tools and approaches to make eradication more practically and financially feasible. Investment programmes have seed-funded garden shed startups that now have a global presence in the pest-management market, and companies like Goodnature, The Cacophony Project, Envico Technologies, Aerospread, X-craft and Zero Invasive Predators are driving innovative projects that the world is watching keenly. However, the goal still lies beyond current abilities. Making progress in research, tools, methods and approaches requires increasing focus and is essential for making the vision of a predator free New Zealand a reality.

You can read more about the PF2050 programme's progress in the 2023 biennial progress report.[13] The next update will be published later this year.

12 Department of Conservation 2020. Towards a Predator Free New Zealand: Predator Free 2050 Strategy. Wellington: Department of Conservation. **www.doc.govt.nz/globalassets/documents/conservation/threats-and-impacts/pf2050/pf2050-towards-predator-freedom-strategy.pdf**

13 **www.doc.govt.nz/globalassets/documents/our-work/predator-free-2050/predator-free-2050-progress-report-2021-2023.pdf**

Strategic focus areas for Predator Free 2050

Mobilise
for action

Innovate
for eradication

Accelerate
eradication across New Zealand

2025–2030 | **Future**

Maintain the gains: Continue essential predator control to create safe spaces for native species and improve biodiversity outcomes.

Looking forward (2025–2030)

The next 5 years are crucial for building on what has already been learnt and setting a path forward. PF2050 will focus on mobilising communities and incentivising innovation, while maintaining the gains that have already been made towards PF2050.

Four strategic focus areas have been designed to set PF2050 up for an acceleration phase beyond 2030 and are outlined below. We are asking for your feedback on a set of goals to guide action in each of these focus areas.

1. **Mobilise for action:** Inspire New Zealanders and empower communities to take action.
2. **Maintain the gains:** Continue essential predator control to create safe spaces for native species and improve biodiversity outcomes.
3. **Innovate for eradication:** Advance tools and techniques to effectively and efficiently eradicate predators in rural, urban and conservation areas.
4. **Prepare to accelerate:** Develop a clear, evidence-based plan to achieve the PF2050 goal that shows the benefits for New Zealand and attracts the funding required to achieve it.

By 2030, the aim is to have evidence that achieving a predator free New Zealand is possible and we know how to do it. To achieve this, there must be a strong understanding of the range of benefits of this work so that these can be quantified and recognised in new ways that may incentivise greater private and community investment. Ultimately, this is aimed at securing the trust and confidence of the Government, strategic partners and New Zealanders to continue PF2050 and fund it to its completion.

DOC is interested in your feedback

To help us craft the next phase of the strategy, DOC is asking New Zealanders to tell us what you think. There are two areas for you to consider:

1. The new set of 2030 goals to act as indicators of PF2050 progress and focus efforts.
2. The proposal to retain the current national target species list.

We have included discussion questions at the end of each section, which are intended to stimulate discussion and prompt your responses.

Proposed Predator Free goals for 2030

Focus area 1 – Mobilise for action: Inspire New Zealanders and empower communities to take action

PF2050 has captured the hearts and minds of New Zealanders more than any other conservation goal has before. People across New Zealand are taking part in the PF2050 movement and feeling the benefits, whether it be trapping in their backyards, volunteering for local groups, donating to Predator Free organisations or sharing the PF2050 story. There is widespread awareness of this grassroots movement, with almost 40% of New Zealanders having heard of PF2050; however, only 24% of these people are confident we can achieve it.[14]

To improve outcomes and grow people's confidence in PF2050, projects must continue to involve the community and include local Iwi/Hapū in leadership and decision making. Over the next 5 years, PF2050 will continue to show progress, share stories of learning and innovation, and provide pathways for the next generation of leaders to inspire, empower and support communities to keep taking part in PF2050 activities.

Draft 2030 goals	Expected outcomes
Community participation in predator control activities has increased by 25% (from 2025 baseline), driven by active support (such as funding, resources, expert advice and training to ensure their success).	A strong foundation of engaged, enabled and empowered predator free community advocates is established and they play a crucial role in raising awareness, spreading knowledge and driving action at the grassroots level.
Iwi/Hapū leaders are supported and enabled to actively participate in PF2050 projects, including in leadership and decision making.	Treaty partnerships are strengthened through working closely with Iwi/Hapū to achieve shared goals for conservation and kaitiakitanga (guardianship), while growing the next generation of leaders.

14 Predator Free New Zealand Trust. 2024. Measuring the perceptions of Predator Free 2050 since 2022 benchmark study. **predatorfreenz.org/wp-content/uploads/2024/06/PFNZ_Final-debrief_2024.pdf**

Focus area 2 – Maintain the gains: Continue essential predator control to create safe spaces for native species and improve biodiversity outcomes

PF2050's drive towards nationwide eradication hinges on the ongoing and critical predator control work that creates safe spaces for New Zealand's native species. While national agencies and regional programmes play an important role in predator control on public land, Iwi / Hapū, landowners, community groups, businesses, philanthropists, schools and tens of thousands of volunteers also play a significant role, working tirelessly to care for the parts of New Zealand that matter most to them. These combined efforts ensure the ongoing stability and recovery of threatened species. This important predator control work must continue while the tools and technologies are being developed to enable eradication.

It is also essential that the predator free areas that are already secured are maintained, especially the existing network of 328 offshore predator free islands. This is critical for species survival as many threatened native species in New Zealand depend on islands for their survival and are found only on offshore islands. By investing in the maintenance and defence of predator free areas, the benefits of these projects can continue for many years to come.

Draft 2030 goals	Expected outcomes
National and community-led predator control projects are demonstrating significant increases in the population trends of native species that are highly threatened by predators.	Diverse populations of highly threatened species, such as kākā, kiwi, kea, kōkako, long-tailed and lesser short-tailed bats, mohua / yellowhead, kākāriki karaka / orange fronted parakeet, pīwauwau / rock wren, whio / blue duck, and Archey's and Hochstetter's frogs survive at key sites and remain for future generations.
New Zealand's offshore predator free island network is managed to best practice biosecurity standards.	We avoid costly incursions and enable faster detection and responses. These standards then inform a blueprint for how biosecurity on mainland New Zealand[15] can be rolled out.

15 Defined as the North Island, South Island and Stewart Island / Rakiura.

Focus area 3 – Innovate for eradication: Advance tools and techniques to effectively and efficiently eradicate predators in rural, urban and conservation areas

Achieving PF2050 remains beyond our current capacity and capability. A wide-range of science research, tool development and mātauranga, as well as the innovation of eradication methods, will be essential to provide a range of cost-effective, socially acceptable and scalable options that can be used to make the vision of a predator free New Zealand a reality.

There is no one-size-fits-all approach to achieving and maintaining eradication. The diversity of environments across New Zealand, the complexities of the species involved and our emerging understanding of how difficult it is to deal with the tricky last survivors mean that a toolbox of options is needed to achieve PF2050. Tools like toxins, traps, genetic modifications, artificial intelligence, lures, detection and image classification, cameras, and detection dogs are all likely to play a part. Guided by experts, PF2050 can also make use of mātauranga-based solutions that have been built from knowledge over generations, drawing from the relationship Māori have with the natural environment and grounded within their cultural values, beliefs and practices.

It is important that the toolkit is optimised for deployment across different landscapes. We need to ask the questions 'What combination of tools will work best in cities versus on farms?', 'What are the best boundaries to use to maintain our eradication gains?', 'How can we detect a last remaining predator or reinvader?' and 'How do we know when eradication is complete?'. A combination of experimentation, advanced computer modelling and sound technical advice will be needed to answer these questions.

The PF2050 community has made progress in learning how to achieve eradication across a range of habitats; however, the costs of eradication and the need to defend areas from reinvasion must be reduced so that our accelerate phase can offer a better return on investment than ongoing predator control.

Draft 2030 goals	Expected outcomes
Rats, mustelids and possums are eradicated from a major city, and there is a tested and proven blueprint for scalable deployment to other urban environments.	Native species have returned to city environments where around 84% of New Zealanders live. Socially acceptable, cost-efficient and scalable predator control approaches can be replicated in other environments.
Mātauranga Māori is making demonstrable contributions to eradication outcomes.	Projects can make operational decisions based on knowledge from multiple scientific disciplines and ways of understanding the world.
Predator eradication is complete or underway across 75% of New Zealand's offshore island network area (this includes the Maukahuka Pest Free Auckland Island project).	Space for native species has more than doubled as the predator free island network grows, plus new tools are in development for use on the mainland, including a new feral cat bait.
The eradication toolbox has expanded to include at least one: • species-specific toxin that is registered and available for use in New Zealand • bait that is registered for use in New Zealand to target introduced mammalian predators • laboratory proof of concept for a breakthrough science solution that helps achieve affordable and scalable rat and/or stoat elimination.	An increased ability to target introduced predators without risks to wildlife opens up new opportunities for achieving eradication at a lower cost.

Focus area 4 – Prepare to accelerate: Develop a clear, evidence-based plan to achieve the PF2050 goal that shows the benefits for New Zealand and attracts the funding required to achieve it

In anticipation of acceleration beyond 2030, PF2050 is working to develop an optimised plan for how PF2050 can roll out across the country. This plan will sit alongside a clear investment model to provide public, philanthropic and private funders with confidence in the costs and benefits (ecological, cultural, social and economic) of achieving the goal. The investment model will show the expected return on investment to different sectors of New Zealand and a cost-benefit analysis of shifting from ongoing predator control to national eradication.

The plan for the roll out will harness the power of supercomputer modelling and emerging evidence, as well as technical eradication expertise. The plan will demonstrate that PF2050 can uphold the obligations associated with Treaty settlements and realise the opportunity of the Treaty relationship.

Ultimately, the plan needs to demonstrate that PF2050 is:

- **achievable** – we have the knowledge, approaches, tools, technology, people and confidence to secure landowner permissions, and the national policy and regulatory settings will enable a smooth transition to the acceleration phase
- **worthwhile** – we can achieve significant ecological, social, cultural and economic benefits for New Zealand
- **sustainable** – we can maintain the predator free status at an acceptable cost.

Draft 2030 goals	Expected outcomes
PF2050 has attracted significant investment from non-Crown funders, supported by clear analysis of the costs and benefits associated with achieving a predator free New Zealand.	PF2050 is a compelling investment proposition for individuals, communities and businesses who care about biodiversity and the impact that improved biodiversity has on broader social and economic outcomes, including New Zealand's climate goals.
Iwi/Hapū are satisfied that PF2050 projects are realising or supporting their aspirations in their rohe (areas).	Relationships with Treaty partners are authentic, enduring, meaningful and based on respect for Treaty settlements and the broader aspirations of Iwi/Hapū in PF2050. Iwi/Hapū are satisfied with how PF2050 projects in their rohe are supporting their aspirations through monitoring, auditing and reporting.

Discussion questions

DOC would like your feedback on the proposed list of goals for 2030.

- What do you think of the draft goals for 2030? Is there anything you would add or change? If so, why?
- If you are already involved in a PF2050 initiative, what support do you or your group need to maintain the progress you have made?
- If you would like to become involved in PF2050, what support do you need? What are the barriers to your involvement?

Mohua / yellowhead on Pukenui / Anchor Island. *Photo: Leon Everett*

Predator Free 2050 national target species

The PF2050 project was created to tackle 7 of the 10 mammalian predator species in New Zealand – possums, ship rats, Norway rats, kiore, weasels, stoats and ferrets. These species were chosen because they are considered the most harmful and the most realistic to eradicate by 2050.

Over the past 5 years, people have raised concerns that by leaving some predator species off the PF2050 national target species list (primarily feral cats), we're missing a chance to maximise the benefits for native biodiversity.

Three mammalian predators are missing:

- **Feral cats:** These skilled hunters are among the most damaging introduced predators in New Zealand's ecosystem. With their high prey drive, they have a major impact on native birds, bats and lizards.
- **Mice:** The negative impacts of mice on native biodiversity are well documented – they prey on smaller creatures like invertebrates, as well as reptiles and birds. There is also concern about how mouse populations respond to the eradication of rats.
- **Hedgehogs:** While there may be less public awareness of the impacts of hedgehogs, they pose a serious threat to native invertebrates, reptiles and ground-nesting birds.

Clearly, eradicating all 10 predator species will achieve wider ecosystem outcomes than eradicating only some of them, but in order to do this we need to grow our understanding of how to control and eradicate these species.

PF2050 already takes a strategic and place-based approach to considering which predators to target. Several PF2050 projects include predators outside the PF2050 national target species list. For example, Stewart Island / Rakiura has no mustelids, but feral cats prey on threatened species like tuturiwhatu-pukunui / southern New Zealand dotterel, so the Predator Free Rakiura project is seeking to eradicate feral cats on the island. Hedgehogs are a target in Te Manahuna Aoraki Project in the Upper Mackenzie Basin and Aoraki / Mount Cook National Park, while the Maukahuka Pest Free Auckland Island will target mice, feral cats and the pigs that overwhelm the island's native populations of plants and animals.

Feral cats

New Zealand has three types of cat populations:

- Domestic/pet cats that are dependent on humans.
- Stray cats that live around towns and cities and have their needs partly met by humans.
- Feral cats that live independently and are among the top introduced predators in New Zealand's ecosystems.

There is no accurate estimate of the total feral cat population in New Zealand, but we do see their impact. Public concern about the threat that the growing population of feral cats poses to our native wildlife is growing, and New Zealanders are increasingly in favour of initiatives to control the impacts of feral cats.

Unlike dogs, there are no centralised rules and no lead agency responsible for the management of cats. DOC has a legislated mandate to manage feral cats on public conservation land. Councils also undertake feral cat management on the lands they manage, and a growing number of them have adopted bylaws that limit the number of cats that can be kept by an individual and require cats to be microchipped and registered on the New Zealand Companion Animal Register.

In 2023/24, the Environment Select Committee considered a petition and recommendation for legislation to be developed to manage cats.

"It is widely known that cats cause a problem for native species, and that rescue groups face relentless battles against the effects of irresponsible owners. We have committed as a nation to invest in the goal of being predator free by 2050, but with no improvement in sight for the management of pet cats, or the elimination of feral populations. Requiring cats to be registered and desexed will reduce their populations, enforce responsible cat ownership, and protect our wildlife."
Erica Rowlands, Petitioner

Inviting discussion on the impact of feral cats is an important part of this consultation process. The government response concluded that the development of national regulation to control and register cats was not a current priority; however, it noted that the Conservation portfolio would investigate refreshing the PF2050 strategy and that considering regulations to control and register cats may form part of this work.

As a first step, this review is considering whether feral cats should be included as part of the PF2050 national target species list for nationwide eradication by 2050. If it is agreed that feral cats should be included, management tools and approaches will be considered as part of implementation planning.

A feral cat preying on a kākāriki / red-crowned parakeet at Emergency Bay, Auckland Island. *Photo: DOC*

How feasible is it currently to achieve national eradication of these species?

Nationwide eradication of these species is limited by the tools, technologies and methods that are currently available and can be applied across the country. A high-level assessment of the current feasibility of national eradication of each of the 10 predator species concluded that currently eradication is:

- **plausible** for possums and possibly ferrets
- **beyond the current capability** for mice, weasels, stoats, feral cats, hedgehogs, Norway rats and ship rats (in increasing order of potential feasibility)
- **complex** for kiore.

The strategic focus on innovation seeks to fill these knowledge gaps and move more species into the 'plausible' category. A summary of the current feasibility of eradication of all 10 of New Zealand's mammalian predator species can be found in Appendix A.

Proposed approach to the PF2050 national target species list

Taking current feasibility into account across the next 5 years, the proposed approach is to retain the current PF2050 national target species list (rats, mustelids and possums) while continuing to advance the understanding of and management approaches for feral cats, mice and hedgehogs. This would enable more informed decision making about which species should be included on the PF2050 national target species list for eradication at the next scheduled review of the PF2050 strategy in 2030.

As part of this proposed approach, PF2050 acknowledges that kiore are a taonga to some Iwi/Hapū. Any mainland eradication would need to have a place-specific understanding of this species and any approaches would need to be agreed with Iwi/Hapū across the country.

Discussion questions

- What do you think of the proposed approach to retain the current PF2050 national target species list?
- Are there alternative approaches that PF2050 could be taking? If so, what are they and why?
- What do you see as the benefits and risks of not including feral cats on the PF2050 national target species list at this time?

We welcome your feedback

Everyone is welcome to provide feedback on this discussion document. Submissions must be lodged by 5 pm on 30 June 2025.

You can make a submission using an online form on the DOC website or use your own structure and layout and send it to us by email or post.

Submissions can be:

- completed online at **www.doc.govt.nz/pf2050discussion**
- emailed to **pf2050discussion@doc.govt.nz**
- posted to PF2050 Consultation, PO Box 10420, Wellington 6140.

DOC will consider all responses received via the submission process and use them to inform the development of the next PF2050 strategy. The strategy will be publicly released by the Minister of Conservation after Cabinet approval.

Any submission you make becomes public information. Anyone can ask for copies of all submissions under the Official Information Act 1982 (OIA). Under the OIA, we must make the information available unless we have a good reason under the Act for withholding it (grounds to do so can be found in sections 6 and 9 of the OIA).

If you think there are grounds to withhold specific information in your submission, please let us know. Reasons for withholding information might include it being commercially sensitive or personal information; however, any decision DOC makes to withhold information can be reviewed by the Ombudsman, who may require the information to be released.

Appendix A: Current feasibility of eradicating pest species from mainland New Zealand

Species	Feasibility	Current feasibility for mainland eradication
On current national target species list		
Brushtail possum	**Plausible**	The largest successful eradication of possums to date is from Rangitoto Island, and several large-scale projects have been successful in reducing possums to very low densities. With several effective tools available, the possum's relatively slow reproductive cycle and dispersal, eradicating possums from the New Zealand mainland is considered plausible.
Stoat	**Beyond current capability**	Stoats are very difficult to eradicate – they are trap-shy and the only successful technique currently available is secondary poisoning from consuming poisoned rats. While stoats have been successfully eradicated from 15 islands in New Zealand, almost all of these sites have had reinvasions from swimming stoats. With the current toolkit, stoat eradication across mainland New Zealand is considered beyond current capability. Effective, targeted toxins for use in rural and urban environments, together with improved detection and removal methods to manage reinvasion are required.
Weasel	**Beyond current capability**	The weasel is perhaps the target species that the least is known about. There are no specific toxins currently registered for weasel control or eradication and the only weasel eradications in New Zealand have been part of multi-species eradications within fenced sanctuaries using aerial toxin application. With current knowledge and tools, weasel eradication from mainland New Zealand is considered beyond current capability.
Ferret	**Plausible**	Ferrets have a somewhat limited range across New Zealand compared with other predator species. Polecats (the wild ancestor of ferrets) were eradicated from England and Scotland in the 19th century, and there are unverified claims of ferret eradication from over 10,000 hectares of land on Ōkahukura Peninsula using only traps. A range of effective toxins and traps are available for the control and eradication of ferrets, and the eradication of ferrets from the New Zealand mainland is considered plausible.
Norway and ship rats	**Beyond current capability**	Norway and ship rats have been successfully eradicated from very large islands in New Zealand using aerial brodifacoum. While eradication is feasible in the backcountry, there are currently limited tools to achieve nationwide eradication of rats from mainland New Zealand across a diversity of landscapes.
Kiore	**Complex**	Kiore are only known to be present on the mainland in parts of Fiordland but do exist on Stewart Island/Rakiura and many offshore islands. Kiore can and have been eradicated from islands and are likely to be susceptible to existing and new rat eradication methods. Kiore are considered taonga by some Iwi/Hapū, and Ngātiwai enact kaitiakitanga (guardianship) over kiore on two small offshore islands. Any mainland eradication would need place-specific understanding and approaches to be agreed.

Continued on next page

Appendix A continued

Species	Feasibility	Current feasibility for mainland eradication
Not on current national target species list		
Feral cat	**Beyond current capability**	Aerial distribution of toxic baits is the most cost-effective method for reducing feral cat populations, especially over large areas. However, this method is not suitable for areas with human habitation. The logistical challenges of accommodating the safety of domestic cats and dogs means that even with new toxins or baits, the eradication of feral cats from New Zealand is considered beyond current capability.
House mouse	**Beyond current capability**	Mice have been successfully removed from 28 New Zealand islands. Currently, the most effective tool for eradicating mice is brodifacoum, which is also widely used for rat eradications. It is not possible to deploy brodifacoum aerially in un-fenced mainland environments, and ground-based operations using traps and bait stations are expensive and require access to all buildings. As such, there is currently no effective large-scale mouse eradication solution for use on the mainland.
European hedgehog	**Beyond current capability**	Despite the inclusion of hedgehogs as a target species in many trapping programmes designed to protect native animals, the level of hedgehog control needed to gain any benefit has not been established. The limitations of existing tools and the logistical constraints of broad-scale use of aerial toxins mean that the eradication of hedgehogs from New Zealand is considered beyond current capability.