

# **STRATEGY FOR A PEST-FREE BANKS PENINSULA / TE PĀTAKA O RĀKAIHAUTŪ**

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**Prepared in 2019**

**by Pest Free Banks Peninsula Working Group**

**Revised in December 2022**

**by the PFBP Project Oversight Group and Project Management Group**



**PEST FREE  
BANKS PENINSULA**

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## 1. INTRODUCTION

Pest Free Banks Peninsula / Te Pātaka o Rākaihautū is a collaborative programme to protect and enhance biodiversity on the Peninsula through the widespread elimination of animal pests. The programme plays a critical role as part of the wider 2050 Banks Peninsula Ecological Vision. As with the other aspects of the Banks Peninsula Ecological Vision, this pest free programme has wider benefits: it supports Ngāi Tahu values, community wellbeing and development, and sustainable agriculture and tourism.

It is a community led initiative, formalised through a Memorandum of Understanding signed by 14 foundation signatories in November 2018. With the Peninsula (including the Port Hills) bordering greater Christchurch, it provides the opportunity for both urban and rural communities, iwi and landowners to be involved in restoring this unique environment.

In 2020 the PFBP partnership was successful in securing funds from national and regional donors, including ECAN and Predator Free 2050 Ltd to undertake a \$10.11 million elimination programme on the Extended Wildside and Kaitōrete. This is a significant step towards eliminating animal predators on Banks Peninsula. Significant progress was also made with eradicating feral goats.

Making Banks Peninsula pest free is an ambitious and aspirational goal. This Strategy outlines what we have achieved so far, what we seek to achieve, the reasons for it and our priorities for the next five years. It is a bold project, with risks and uncertainties that need to be addressed. The strategy will be updated and amended, when necessary, to achieve our vision.

## 2. OUR VISION – WHAT WE AIM TO ACHIEVE

Our vision is:

Our native plants, birds, animals and insects are flourishing on Banks Peninsula, free from the threats of introduced animal pests. The forests are thriving and filled with birdsong. Native lizards and invertebrates are prolific in the native scrublands and rocky outcrops. Seabirds nest safely in the coastal areas. Species that were previously locally extinct have now been re-introduced and are growing in numbers.

The abundance of native wildlife provides a sense of identity to the Peninsula. It is valued by the community and integrated with farming, tourism and recreational activity. It is known as a special place to live and attracts many local and international visitors. It is renowned as an exemplar of habitat restoration.

For Iwi the vision could be encapsulated in “Ahi Ka”. The home-fires are strong. Young people can return home and have jobs based on a vibrant economy which has a foundation of flourishing biodiversity. Taonga species have been returned and kaitiakitanga is actively practised. The mana and mauri of the land is strong. (Note: This section is to be checked by iwi and rūnanga before finalising )

### 3. OUR MISSION – WHAT WE WILL DO

Our mission is to free Banks Peninsula / Te Pātaka o Rākaihautū from mammalian pests by 2050 through a community led, agency supported, pest elimination programme.

### 4. OUR PRINCIPLES – THESE WILL GUIDE OUR DECISIONS

**Outcome focused:** Our choices will be guided by our vision, preserving biodiversity and the related benefits of supporting Ngāi Tahu cultural values, building community connections and a strong economy.

**Community led:** The programme has been initiated by the community and will reflect their aspirations. Participation is encouraged.

**Accountable:** Residents and external funders are being asked to support and participate in this project. In return we will be open, honest and accountable for what we do and achieve.

**Innovative:** Our vision requires innovation: existing methods are not enough.

**Evidence based decisions:** Good information supports good decisions. We will actively support monitoring and research.

**Sustainable:** As a long-term project, the effort and funding must be sustainable. The programme must be realistic and underpinned with on-going support from local and national agencies and funders.

### 5. WHAT WE WILL DO – OUR GOALS AND OBJECTIVES

The Goals and on-ground Objectives of our work are summarised in this section. A full descriptions of each of the Goals and Objectives are set out later in this document.

**Goal 1: To progressively eliminate mammalian pests from Banks Peninsula (including the Port Hills) and Kaitōrete, while continuing to protect existing biodiversity.**

*Objective 1: Eradicate feral goats from the Peninsula by 2024 and develop a control programme for feral pigs.*

*Objective 2: Eliminate possums from the Extended Wildside by 2026 whilst also suppressing stoats and feral cats.*

*Objective 3: Commence expansion of Extended Wildside elimination programme by 2026.*

*Objective 4: At least 3000 households participate in backyard trapping on the Port Hills by 2025.*

Objective 5: Possum, rat, feral cat, hedgehog and mustelid populations are reduced to low levels in 1,000ha of the southern Port Hills biodiversity hub by 2024.

Objective 6: Eliminate possums, mustelids, hedgehogs and feral cats from Kaitōrete by 2025.

Objective 7: Develop programmes to support community and landowner efforts through targeted planning and advice.

**Goal 2: To support and work effectively and collaboratively with landowners, partner organisations and volunteers to achieve the vision.**

**Goal 3: To base decisions on good information.**

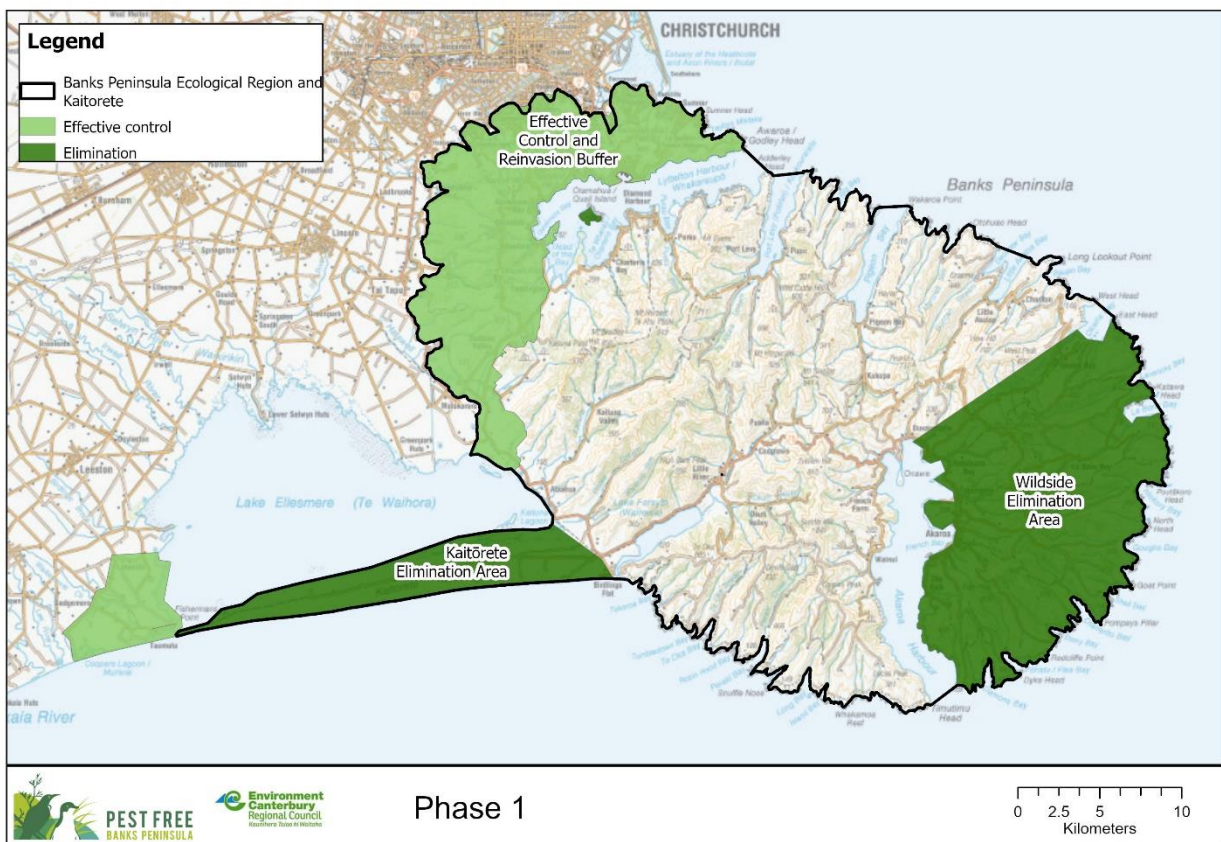
**Goal 4: To be innovative and adaptive.**

**Goal 5: To build delivery and management capacity.**

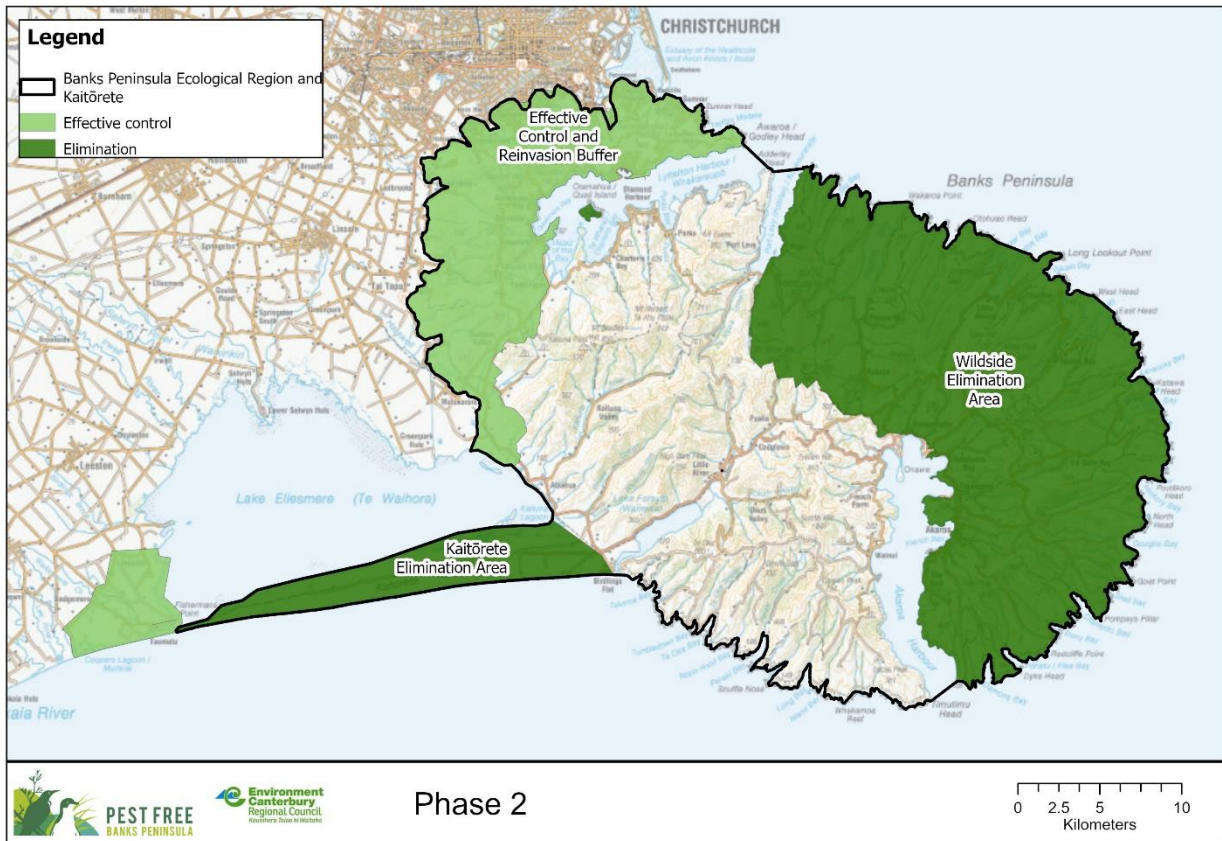
**Goal 6: To grow consistent and stable funding.**

## 6. MAPS OF PHASES

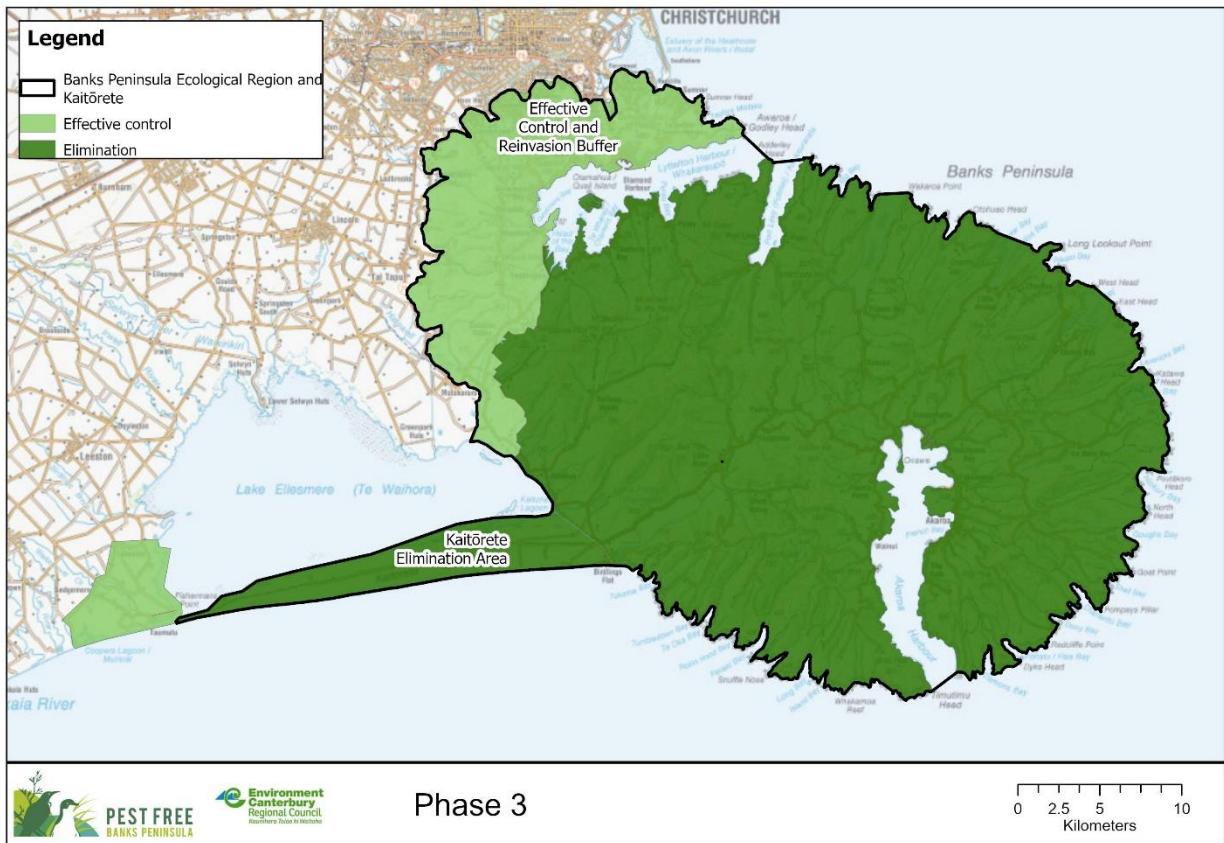
(Note: these maps will be updated and the quality improved once Strategy edits are complete)



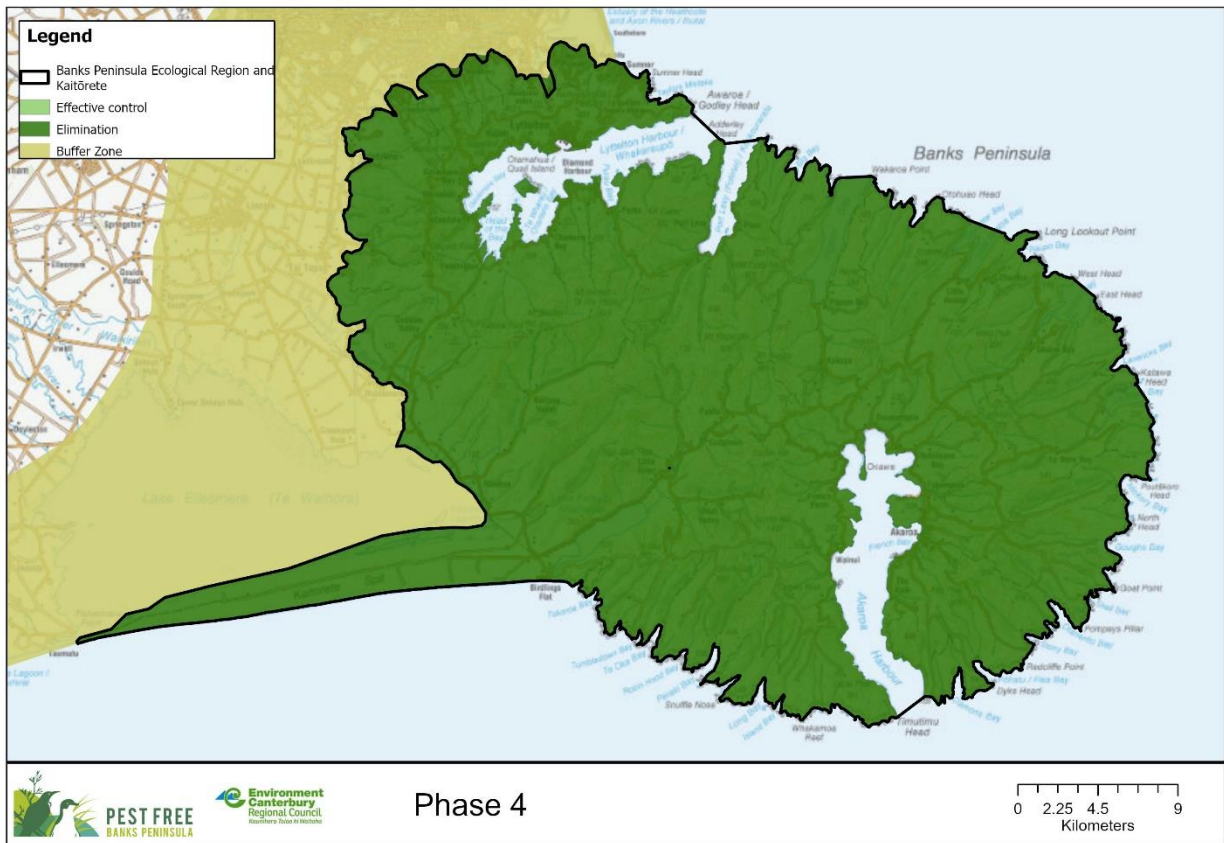
Phase 1 of Pest Free Banks Peninsula: elimination within the Wildside area and Kaitōrete.  
 Effective control in the Port Hills and Whakaraupō / Lyttelton basin.  
 Note: The goat elimination and possum suppression programmes are not shown in maps



Phase 2: Wildside Elimination Area expanded, Kaitōrete maintained



Phase 3: The elimination areas meet the control areas of Port Hills.



Phase 4: Aspirational vision for a Pest Free Banks Peninsula 2050 where elimination has been completed and a buffer established outside the Peninsula.



## 7. THE PEST FREE INITIATIVE IN CONTEXT

### 7.1 A diverse landscape

Banks Peninsula, along with Kaitōrete, comprises a mosaic of pastoral and horticultural land, exotic plantation forests, urban areas, remnant patches of indigenous forest, basalt outcrops and coastal habitats on dunes and beaches, cliffs and rocky foreshores. There are areas of successional shrubland in areas previously cleared for farming, now regenerating towards indigenous-dominant vegetation. The Peninsula spans the wild bays in the south and east of the Peninsula to suburban Christchurch on its northern edge. This mosaic of habitats, with its volcanic topography and coastal backdrop, is a landscape rich in biodiversity.

### 7.2 Rich in Biodiversity

Banks Peninsula has many high value habitats and threatened species. It contains many endemic species (they are unique to Banks Peninsula and found nowhere else in the world).

Much of the original forest vegetation was removed by Māori and early European settlers but patches of original forest remain. This includes beech forest at Hinewai, podocarp forest in the Hay and Mount Herbert Scenic Reserves and Ahuriri QEII Reserve, kaikawaka/cedar forest at Armstrong Reserve, and Palm Gully Scenic Reserve with its southern-most nikau groves.

The rocky volcanic outcrops are naturally rare ecosystems and support high concentrations of threatened and endemic species of plants, lizards and invertebrates. Sea cliffs and rocky shorelines provide habitats for a wealth of bird and marine life, traditionally a major source of mahinga kai for tangata whenua. The sand dune landscape of Kaitōrete is nationally significant and supports rare and threatened native flora and fauna.

The Peninsula is the southern limit for several warm-temperate plant species and the northern limit for a few southern species. Six plant species are endemic to the Peninsula and a further 41 species are classified as regionally endangered or threatened. About 60 invertebrate species are endemic to the Peninsula. Three of the six reptile taxa present are classified as threatened. Twelve indigenous bird species were considered to be locally extinct, although one (tūī) has recently been reintroduced.

### 7.3 A human habitat

Kaitōrete is the wide shingle spit (5,500 ha) that separates Te Waihora (Lake Ellesmere) from Te Moana-nui-a-Kiwa (the Pacific Ocean). Extending 25 km from the foot of Horomaka/Te Pātaka-a-Rākaihautū (Banks Peninsula) at Wairewa in the north to Taumutu to the south, Kaitōrete was part of a key travel route for Ngāi Tahu. It proved much easier to access than navigating inland around the swampy edges of Te Waihora, which covered twice the area that it does today. Kaitōrete was an important source of mahinga kai, and is a tribally-renowned source of the endemic golden sand sedge, pīngao (*Ficinia spiralis*), a fibrous plant used for weaving. In former times, channels were dug from Te Waihora into the spit for tuna (eels) to enter during their migration. The whole of Te Pātaka-a-Rākaihautū (Banks Peninsula) has 5 Rūnanga that are actively involved as kaitiaki.

People live, work and visit Banks Peninsula. Most of the land on the Peninsula is privately owned and agriculture, tourism and the Port of Lyttelton are major economic activities. There are urban areas and lifestyles blocks, especially on the Port Hills and areas closer to Christchurch. It is a recreational destination for many Christchurch residents and attracts visitors from around the world.

For well over 100 years, people have undertaken conservation activities on the Peninsula. This has included weed and animal pest control, fencing, planting, covenanting of biodiversity, and the building of tracks and huts to enable access for both locals and visitors. The 2050 Ecological Vision for Banks Peninsula / Te Pātaka o Rākaihautū (including the Port Hills) developed by the Banks Peninsula Conservation Trust in consultation with the Peninsula community, was part of the impetus for Pest Free Banks Peninsula and reflects this local interest.

## 8. THE ANIMAL PEST THREAT

### 8.1 The impact on biodiversity

Introduced animal pests are the major threat to biodiversity on the Peninsula. The future survival of several of the remaining indigenous bird species will only be ensured by ongoing management of introduced predators such as rats, stoats, cats and possums. Smaller indigenous animals, such as lizards and invertebrates, are predated by rats, hedgehogs and mice. Native plants are vulnerable to browsing by larger animals such as goats, deer and pigs, as well as smaller mammals such as possums, rabbits and hares.

With a high degree of endemism, the loss of many of these species on Banks Peninsula would mean extinction. They are found nowhere else in the world.

### 8.2 Funded Elimination programme

In August 2020 PFBP launched a significant programme of work as part of meeting this strategy. Ratepayer funds from ECAN provided \$3.25 million and Predator Free 2050 Limited funded \$5 million to 2025, along with other sources a total of \$10.11 million.

The focus of this work is in two sites. On Kaitōrete the aim is to eliminate possums, feral cats, mustelids and hedgehogs across ~5000 hectares. On the Extended Wildside the aim is to eliminate possums across ~23,000 hectares and suppress mustelids and feral cats.

The term “elimination” is used as it is more appropriate to a mainland context where achieving “eradication” or zero of the target species is practically impossible due to reinvasion. Elimination means functional extinction of the target species (ie they are in such low numbers that they are unable to breed). Any reinvasion is managed through buffer zones of traps remaining in place and enhanced monitoring that identifies and dispatches individuals quickly.

A team of 15 staff are now actively undertaking these ambitious and complex programmes, alongside the community, iwi and landowners. The two very different landscapes will test our ability to achieve elimination with the tools we currently have available. An Elimination Strategy has been developed and Operational Plans set out the detail of these operations. These plans are overseen by an active Programme Management Group which meets monthly and represents many of the MOU parties. An overall Programme Oversight Group provides governance support. Both of these groups are significant parties to implement this strategy.

### 8.3 Other control programmes

Historically, animal pest control on the Peninsula was focused on agricultural pests, such as rabbits and hares for land management, or possums for the control of bovine tuberculosis. Today, the emphasis is primarily on biodiversity protection and enhancement.

The full extent of existing control activities is hard to quantify as there are many parties involved. Projects range from agency led Peninsula-wide initiatives through to individuals trapping in their backyards. What is clear is that they are extensive and widely supported by the community who live and visit the Peninsula. Some examples include:

- A multi-party feral goat eradication project jointly led by the Department of Conservation and the Banks Peninsula Conservation Trust with assistance from CCC, ECAN, Rod Donald Trust and landowners. The committee overseeing the work is chaired by Pam Richardson.
- The community trapping programme led by the Summit Road Society which had an estimated 6000 hours of volunteer time spent on trapping on the Port Hills in 2018 and aims to have 4000 households participating in backyard trapping by 2025.
- The multi-party Te Kākahu Kahukura project, covering an area from Kennedy's Bush to the upper part of Whakaraupō / Lyttelton Harbour.
- Targeted programmes to protect areas of high value biodiversity, such as Ōtamahua / Quail Island, Kennedy's Bush, relevant initiatives funded by the CCC Christchurch Biodiversity Fund, and a planned predator exclusion initiative at Goat Point. CCC also has targeted programmes focusing on the Port Hills and other Sites of Ecological Significance on Banks Peninsula.
- Several local community-led local initiatives such as Predator Free Allandale/Living Springs and Rewild Wainui
- The testing of new, innovative technologies, such as the Cacophony Project

While the possum and goat programmes cover most of the Peninsula, the trapping efforts for smaller mammals (such as mustelids, rodents, hedgehogs, and feral cats) are scattered across the Peninsula.

## 9. THE STRATEGIC ISSUES

The high biodiversity values, many of which are unique to the Peninsula, are threatened by browsing and predation by introduced animal pests. Removing these threats is the primary impetus for Pest Free Banks Peninsula.

Pest Free Banks Peninsula aligns with national and regional priorities and there is demonstrable local support for biodiversity pest control on the Peninsula. This interest has grown significantly following the Government's 2015 announcement of Predator Free 2050, especially among urban residents.

The human presence on the Peninsula creates challenges that do not exist for pest elimination in areas such as remote islands, wilderness areas or fenced sanctuaries. Pest control methods must be safe for this environment and fit with people's values and livelihoods.

The extent of private land ownership means landowner enthusiasm and support is critical, both for permission to carry out pest control operations and for rate-based funding support.

Innovation is essential to achieve the vision. Most existing programmes (with the exceptions of Quail Island and the feral goat project) are aiming at suppression of pests, not elimination. This highlights the

challenge of elimination and what is required to achieve it. Elimination requires effective methods, careful planning and, above all, adaptation and innovation. For smaller mammals, the pest-free vision is aspirational: elimination with current tools, techniques and knowledge is neither feasible nor affordable in this environment. Most elimination efforts elsewhere have relied on aerially distributed toxins which, for various reasons, is problematic on the Peninsula. Even on small remote islands, it was innovation and adaptation, supported by good monitoring, that led to success. Here, we need to repeat that process to develop new methods suitable to our context, drawing upon expertise both locally and from elsewhere.

Existing funding and capacity is insufficient to achieve elimination, or even a significantly expanded suppression programme to protect existing biodiversity. While the \$10 million programme is a significant and vital start, it is only the beginning.

Even with a significant and growing volunteer base, people and resources are needed for planning, equipment, training and coordination. Without these ingredients, volunteer projects are often ineffective, short-lived and subject to rapid re-invasion. In more remote and difficult terrain, professional contractors will be required, particularly where elimination is the goal.

Currently, monitoring and reporting is generally poor. The reasons for this relate primarily to funding, although complexity, available expertise, long timeframes and the range of organisations involved are compounding factors. The improvement of monitoring and reporting is a strategic issue for this project.

Experience from eradication programmes elsewhere has highlighted the risk of adverse trophic consequences. This can occur when higher-order predators, such as cats, stoats or possums, are removed, allowing reduced pressure on their prey. This can result in unexpected and negative biodiversity outcomes. Hence the need for close monitoring.

The removal of animal pest threats enables other activities relating to the vision. This includes translocation of locally extinct species and greater success with local actions such as restoration planting. Such initiatives are outside of the scope of Pest Free Banks Peninsula but are enabled by it.

## 10. THE BENEFITS – WHY A PEST FREE PENINSULA IS IMPORTANT

The elimination of mammalian pests from offshore islands and predator-fenced sanctuaries demonstrates what is possible when pests are removed. These areas have played a critical role in preventing the extinction of species and created safe zones into which vulnerable species can be reintroduced. They now have diverse and abundant native wildlife not normally seen by New Zealanders, reminiscent of our indigenous biodiversity when Europeans first arrived.

A pest-free Banks Peninsula will allow indigenous plants and animals to flourish here, free from browsing and predation. Remnant ecological communities will grow and flourish, supported by related restoration efforts, such as the reintroduction of locally extinct plants and animals.

For Ngāi Tahu, kaitiakitanga and mahinga kai are traditional practices. The restoration of native wildlife on Banks Peninsula / Te Pātaka o Rākaihautū (the food store house of Rākaihautū), sits alongside the restoration of Wairewa / Lake Forsyth and Te Waihora / Lake Ellesmere, originally called Te Kete Ika o Rākaihautū (the fish basket of Rākaihautū).

As a community led initiative, the journey and the destination of a pest-free Banks Peninsula are important. Participation connects people with people and it connects people with their environment. In good times, such initiatives provide a sense of shared purpose, belonging and achievement. In times of

crisis, as we have experienced, the connections with others are even more critical: they provide a network through which people communicate and share, helping our emotional, mental and physical well-being.

Pest Free Banks Peninsula will provide economic benefits. Flourishing wildlife is good for tourism, as well as residents. For farming, it removes disease vectors and browsing pests. Funding from external grants contributes to local economic activity and employment.

## 11. THE GEOGRAPHICAL BOUNDARIES AND SCOPE OF THE PROJECT

Geographically the programme covers the Banks Peninsula Ecological Region (including the Port Hills) and Kaitōrete (shown in Figure 1). It includes public and private and urban and rural land.

Fifteen species of pest mammal will eventually be eliminated by 2050, although not all at once. These are possums, rodents (three species), mustelids (three species), hedgehogs, rabbits, hares, feral cats, goats, deer (two species) and pigs. Domestic and farm animals are excluded from the programme.

Pest Free Banks Peninsula is focused only on animal pests, not plants. We recognise that the control of plant pests is important to protect biodiversity, however, adding plant pests to our programme at this time would be detrimental. It would dilute our focus and resources and add significant complexity and risk. This position may be reconsidered in the future, once the animal pest programme is properly established.

## 12. OUR GOALS AND OBJECTIVES

The six strategic goals (below) reflect the breadth of work required to achieve the vision. While Goal 1 is the overarching one for on-ground implementation, it cannot be achieved in isolation. All six goals are essential for achieving our vision.

The immediate strategic imperative is to develop and cost operational plans for the proposed priority activities. This will enable the initial priorities to be confirmed and matched to available resources. This planning and budgeting phase is essential to inform decision making and ensure the programme for which we seek funding for is realistic, sustainable and includes all the components necessary for success. As well as the on-the-ground control operations, related activities include management and administration, community engagement, fund raising, monitoring and reporting.

### 12.1 On-ground actions

**Goal 1: To progressively eliminate mammalian pests from Banks Peninsula (including the Port Hills) and Kaitōrete, while continuing to protect existing biodiversity.**

The on-ground priorities reflect the need to balance:

- continuing biodiversity protection
- maintaining and growing community support and participation
- affordability and technical feasibility
- achievement of the long term goal of elimination.

Larger animals, such as goats, deer and pigs, can be eradicated from the Peninsula by taking a whole-of-Peninsula approach, utilising current tools and realistic budgets. Eradicating smaller animals is more difficult and costly. Hence we have used the term “elimination”. This acknowledges that numbers will get to functional extinction and any reinvasion will be managed. A staged approach will be used, starting on the Wildside and Kaitōrete. These have high biodiversity values, strong landowner support and are relatively defensible against reinvasion. A buffer zone will be created to reduce the risk of reinvasion from adjacent areas. Once elimination has been achieved in the initial areas, the elimination area can be extended into the buffer zones and new buffer zones created. This buffer / eliminate / buffer / eliminate approach would continue to be rolled out in a collapsing domino manner, until it covers the entire Peninsula, including the Port Hills and Kaitōrete. This phased approach to the elimination of small animals is shown in Figures 1 to 4. It does not show the Peninsula-wide elimination programme for goats .

Based on these factors, the **proposed on-ground actions for 2022 - 2027** are reflected in the following objectives:

*Objective 1: Eradicate feral goats from the Peninsula by 2024 and develop a control programme for feral pigs.*

Browsing by feral goats, deer, and pigs is a significant threat to native plants and habitat and hinders restoration planting (particularly on the Port Hills). Feral goats are the immediate on-ground priority due to their numbers and community support. Further investigation will be done for deer, particularly on the Port Hills where they are hindering restoration planting following the 2017 fires. Control of pigs focuses on halting their spread and trialing methods for reducing their current range (this includes both trapping and specialized hunting)

*Objective 2: Eliminate possums from the Extended Wildside by 2026 whilst also suppressing stoats and feral cats.*

Initially possums, feral cats and stoats will be targeted, as these are the most feasible for eradication with existing methods. This will cover over 28,000ha until early 2026, covering the Wildside and part of the Extended Wildside. Rats, mice and hedgehogs will be monitored, and targeted control of rats is planned in smaller areas of high biodiversity value to avoid adverse trophic consequences following the removal of larger predators.

*Objective 3: Commence expansion of Extended Wildside elimination programme by 2026.*

This is the second phase of the elimination roll-out for possums, *whilst also suppressing stoats and feral cats*. It is expected to commence in the next 20,000 hectare block during 2026 (subject to funding).

*Objective 4: At least 3000 households participate in backyard trapping on the Port Hills by 2025.*

This is strategically important due to its proximity and participation opportunities for Christchurch residents, especially on Port Hills and Lyttelton Harbour. Ultimately, it will form part of the western boundary between the Peninsula and City and plains. Objectives 4 and 5 focus on suppressing pest numbers, rather than elimination, due to the high risk of re-invasion.

*Objective 5: Possum, rat, feral cat, hedgehog and mustelid populations are reduced to low levels in 1,000ha of the southern Port Hills biodiversity hub by 2024.*

The Port Hills biodiversity hub consists of public and private land from Kennedys Bush to Governors Bay, Quail Island and Living Springs (now under the Te Kakakahu Kahukura project). The dual aims are to protect and enhance biodiversity and to support local participation opportunities close to Christchurch.

(Note: Objectives 4 and 5 are complementary).

*Objective 6: Eliminate possums, mustelids, hedgehogs and feral cats from Kaitōrete by 2025.*

Kaitōrete is a priority due to the outstanding biodiversity and cultural values and the on-going threat from browsing and predation. The initial focus is on the western end of Kaitōrete. In addition to possums, mustelids and feral cats, there will be intensive focus on rats and hedgehogs in this area. There will be on-going pest suppression at either end of Kaitōrete to provide a buffer to the elimination area to reduce reinvasion as well as protect habitats and species.

*Objective 7: Develop programmes to support community and landowner efforts through targeted planning and advice.*

Environment Canterbury's CIP (and earlier Animal Health Board operations) have now been replaced by Pest Free BP's activities and focus. However, it is important not to lose the previous gains made.

*Possum numbers are to be suppressed in other areas by supporting community and landowners. In addition to the suppression of possums, we will also provide support to community-based initiatives which target other animal pests.*

## 12.2 Engaging the community

**Goal 2: To support and work effectively and collaboratively with landowners, partner organisations and volunteers to achieve the vision.**

Working effectively to activate and support landowners, partner organisations, community organisations and volunteers is critical to achieving the vision. Having strong communications is an important part of this and includes PFBP having a communications advisor that works alongside agencies. There is a need to better communicate the revised Strategy to the public, and also to implement an overall integrated communications strategy and communications plan which includes the range of activities which are part of PFBP.

A landowner liaison officer is also employed to relate directly with landowners to ensure permissions and maintaining high health and safety standards.

At the date of this document (December 2022), there are significant resource constraints in this area.

We will also work with the Regional Council in updating and communicating the Regional Pest Management Plan to support the PFPB work.

## 10.3 Research and monitoring

**Goal 3: To base decisions on good information.**

Good information supports success. It informs programme design, adaption and innovation. It reduces the risk of adverse outcomes (such as unforeseen trophic consequences) and enables accountability to funders, participants and the community. Research insights can come from the Peninsula or elsewhere. As

a long-term project, we will seek to establish on-going partnerships with research institutions and information sharing with similar initiatives elsewhere in New Zealand.

Monitoring is critical but can be complex and expensive. Ideally, it covers control results (such as pest counts) and outcomes (the state of the flora and fauna), both before and after control operations. It requires systems and processes for data collection, analysis and reporting. It must use suitable and consistent methods to give valid and comparable data, both over time and between sites. A biodiversity monitoring plan has been developed to resolve these questions and ensure monitoring is feasible, affordable and fit for purpose.

### 12.3 Innovation

#### **Goal 4: To be innovative and adaptive**

New tools and techniques are essential if large-scale eliminations are to be achieved and maintained. This includes learning from within the programme, as well as working with innovators from other projects and businesses.

### 12.4 Capacity building

#### **Goal 5: To build delivery and management capacity**

Pest Free Banks Peninsula is a significant step up for pest control on the Peninsula. It is large and ambitious and while the collaborative, multi-party nature of the project gives it strength it also adds complexity. People and systems are needed to lead the project, plan and implement operational delivery, engage with landowners, monitor and report progress, support landowner and local community led work, secure funding, and manage relationships with partners and stakeholders. Funding has been secured for the first 5 years of the programme that employs 15 staff. However, it takes time to develop capacity and experience and we cannot underestimate the challenges involved. Specific needs include additional support for communications and community liaison, and the need for a paid staff member(s) to coordinate/support landowner groups across the Peninsula and the work of SRS on the Port Hills.

#### **Goal 6: To grow consistent and stable funding**

Substantial and sustained funding is required to achieve the pest-free vision. Phase One on the Extended Wildside and Kaitōrete has been costed at \$10.11 million and around \$9.1 million has been secured from ECAN (through rates and other contributions) and other funders with matched 1:1 funding from Predator Free 2050 Limited.

The cost of completing the other phases of the Elimination Project is difficult to predict as success is expected to take decades and require new and innovative technology.

In addition to the elimination project on the Extended Wildside and Kaitōrete, there are a range of suppression and control activities which are part of the overall PFBP work including the control of pigs and deer, community based work on the Port Hills coordinated by SRS, Te Whaka Ora, Living Springs, several locally based community initiatives, as well as continuing work by Councils and the Department. There is an urgent need to grow the funding for all these parts of the overall PFBP work.

Volunteer labour and expenditure (such as the purchase of traps) also contributes to the programme, especially in urban trapping areas. The level of activity will be adjusted to match available funding.



### 13. CRITICAL RISKS

The following risks and primary mitigation measures have been identified as significant. They will be addressed in operational and tactical plans.

Risk	Mitigation
Costs of achieving pest free is too high / technically infeasible.	Adapt and adopt innovative methods to improve efficiency. Re-scope operational priorities if not affordable.
Achieving elimination may require aerial toxins, which may be unacceptable to landowners or other key stakeholders.	Attempt to achieve eradication without aerial toxins. Seek innovative alternatives.
Some individual landowners refuse to participate, resulting in pest reservoirs within the project boundary.	Early landowner engagement and using local leaders and influencers. Seek regulatory tools, if needed.
Adverse trophic consequences (such as increases in rodents after the removal of possums, stoats or cats).	Monitor and, if necessary, control non-target pest species.
Re-invasion of eliminated areas.	Monitor for re-invasion and deploy rapid response.
Insufficient funding.	Match the extent and timing of the programme to available funding. Seek additional funding as needed. Work with agencies through Long Term Planning to leverage funds.
Control effort is spread too thinly.	Use monitoring data to assess effectiveness and slow down or concentrate effort if needed.
Opposition to the elimination of some pest species (such as feral cats, pigs and deer).	Focus on outcomes and demonstration of the benefits. Match roll-out with levels of acceptance. Use methods that do not target domestic cats.
Difficulties recruiting field team members due to limited local labour market, cost of living increases, time spent traveling and the availability of 'easier' mahi for higher financial reward	Use local channels to advertise positions. Support staff with learning and development. Work with PF 2050 Ltd to index funds against inflation.
Impacts of COVID-19 including supply chain issues	Ensure planning ahead for procurement as much as possible. Pivot to new technologies
Learnings from other projects are not shared and the overall PF 2050 strategy is not built on shared learnings	Continue to lobby major funders (PF 2050 Ltd and DOC) to develop learning systems for all projects to use and share lessons.

## 14. PARTIES INVOLVED IN THE PROGRAMME

The following organisations are inaugural signatories to the Pest Free Banks Peninsula Partnership Memorandum of Understanding (MOU).

Banks Peninsula Conservation Trust, Rod Donald Banks Peninsula Trust, Summit Road Society Incorporated, Department of Conservation, Environment Canterbury, Christchurch City Council, Ōnuku Rūnanga, Te Hāpu o Ngāti Wheke Rūnanga, Te Rūnanga o Koukourārata, Te Taumutu Rūnanga, Wairewa Rūnanga, Living Springs, Selwyn District Council, and the Cacophony Project.

Pest Free Banks Peninsula is an open partnership and is actively looking to recruit additional community, educational, and business members.

A management structure is outlined in the MOU with a governance level Project Oversight Group supported by a Project Management Group.