

PEST FREE PIHA STRATEGIC PLAN 2018-2025



DRAFT FOR CONSULTATION

Prepared for Pest free Piha, a project of Protect Piha Heritage Society Inc, by Koru Biosecurity Management, May 2018.

Feedback on this plan is invited by email (pestfreepiha@gmail.com) or in writing to CM Box 3 Piha, by 12 July 2018. There will also be Strategic Plan Drop In at the Old Schoolhouse (adjacent to the West Coast Gallery) on Sunday 1 July from 10am to 12 noon.

TABLE OF CONTENTS

1.	Introduction	3
2.	Vision and Goals	4
	2.1 Vision	4
	2.2 Goals	4
	2.3 Objectives 2020	4
	2.3 Objectives 2025	4
3.	Specific Pest Threats to Piha	4
4.	Benefits of a Pest free Piha Project	5
5.	Risks of a Pest free Piha Project	6
6.	Integration and Promotion of Project with other initiatives	7
7.	Timeline and Scope	8
	7.1 Pest Animals	9
	7.2 Pest Plants	10
	7.3 Pathogens	11
8.	General Pest free Piha Project Boundary	11
9.	Governance and Administration	11
10.	Project Partners	12
11.	Resourcing Options	12
APPENDIX	Approximate Project Boundary	13

Pest free Piha Plan 2018-2025

1. Introduction

There are many reasons people are attracted to live, have baches, camp or visit at Piha - the surf breaks, the beaches, the bush walks (now mostly coastal) or just hanging out away from the pressures of city life. Piha has outstanding scenic and landscape values, including the flora and fauna of the Ranges and an attendant lifestyle that these values and seaside living enable. However native species biodiversity has been declining in Piha (as well as nationally and regionally) due to habitat loss and the impacts of human settlement, pest animals, plants and pathogens. This decline has been well documented in the Waitakere Ranges¹².

The values most at risk at Piha include loss of native bush due to invasive weeds; loss of fauna due to pest animals; loss of kauri to dieback disease; sand dune modification due to exotic plant colonisation and rabbit browse; health risks posed by wasps, possums, hedgehogs etc; negative lifestyle impacts of Argentine ants, rodents and pest plants; and declining asset values due to weed presence generally.

Communities in New Zealand are increasingly implementing pest-free initiatives of a nature similar to the Pest Free Piha Strategic Plan (the Plan). These communities see the advantages inherent in being pest-free, which also include fostering greater community cooperation, pride and resilience. Piha provides a unique example of where being pest-free can be achieved at lower cost than elsewhere and can confer greater regional benefits than at other locations. This is because Piha is essentially a small island of high pest indices surrounded by a great area of lower pest indices (the Waitakere Ranges Regional Park) and the Tasman Sea, meaning that currently rats, mice, rabbits, hedgehogs, Argentine ants and most weeds all tend to radiate out from Piha rather than come in from outside. Maintenance of pest-free borders can therefore be achieved at lower cost than in other locations generally. Furthermore, any effort at Piha would assist in reducing pest threats to the Park (and their cost), and essentially pilot options for Auckland Council's (AC) recently declared *Pest free Auckland*, including the strategic approach in this Plan of setting a deadline, establishing a baseline and monitoring and evaluation progress.

At Piha, there's much to build on – the weed groups begun in Rayner, Garden Rd and Beach Valley roads; the predator control at Te Waha protecting the grey-faced petrels in their burrows; the our Backyard Piha Project tackling climbing asparagus; the volunteers helping the rangers each week; and the many individuals already dealing with pest weeds on their properties and undertaking rat and possum control. Pest free Piha aims to bring all this effort together in a more organised and strategic approach. We'll help get volunteer groups set up in, eventually, every neighbourhood to tackle both weed pests and predators.

¹ Auckland Council's Indigenous Biodiversity Strategy (2012)

² Waitakere Ranges Strategic Weed Management Plan (2015)

2. Vision and Goals of Pest free Piha

2.1 Our Vision – Weed and Predator Free Piha by 2025

2.2 Our Piha Goals

- Integrated best-practice³ pest animal and pest plant management programmes implemented to make Piha pest-free by 2025
- Eradication of new high-threat weeds as they appear
- Cooperating in management of kauri dieback disease to prevent further spread
- Eradication of Argentine ants
- Successful advocacy to Auckland Council for policies and practices to enhance weed and predator-free status and reduce fire risks at Piha
- Initial control area expanded from Piha properties to entire Piha catchment (consistent with kauri dieback protocols)
- Programme of weed replacement implemented and maintained with native plant species sourced locally.
- Keeping people and pets safe while at the same time making sure that the impact of domestic cats and dogs on native fauna is minimised. Avoiding erosion on banks by gradual removal of pest weeds and strategically planting native replacements even before removal of invasive weeds where this is possible

2.3 Our Piha Objectives 2020

- Possums, rats, mustelids, rabbits and hedgehogs controlled to functional extinction indices at Piha
- Cooperate where necessary in control of feral pigs by Auckland Council in the Piha catchment
- Seasonal control of *Vespula* wasp species wherever any other activities are being undertaken
- Programme of weed replacement implemented and maintained with native plant species locally-sourced wherever possible

2.4 Our Piha Objectives 2025

- Elimination of all “Waitakere’s Worst Weeds” and other priority invasive weeds in Piha with on-going maintenance of free of this weed free state
- Eradication of Argentine ants
- Initial control area expanded from Piha properties to entire Piha catchment in cooperation with Auckland Council and consistent with kauri dieback protocols.

3. Specific Pest Threats to Piha

The greatest short-term threat to Piha is ecological damage caused by pest animals. If pest animals are not controlled to very low levels, then most native birds become locally extinct, followed by geckos and skinks, then some native plants (due to lack of pollinators and

³ Best Practice is defined as those methodologies, techniques and approaches contained in the current Auckland Council Biosecurity Best Practice Manual and/or website.

propagule vectors). In the medium term, pest plants will replace native forest, shrubland, dune land, and freshwater and its margins, which not only exclude native animal species but also largely destroy scenic values. Some weeds e.g. wild ginger contributes to erosion on steep slopes. Other weeds are toxic (e.g. moth plant, tradescantia, privet), cause dermatitis (ivy, tradescantia, alligator weed, agapanthus) or allergy-like effects (2 privet species), impede access (gorse, pampas, weedy vine species), pose a fire risk (pampas, gorse), or cause flooding (freshwater weeds). Weeds also tend to harbour pest animals and exacerbate their impacts. The replacement of habitat by weeds in turn negatively impacts on property asset values over time.

Pest animals carry human diseases. Possums are a primary vector of campylobacter, cryptosporidium protozoa, coccidiosis, leptospirosis, salmonellosis and toxoplasmosis. They also spread bovine tuberculosis that can affect pets. Hedgehogs and feral pigs spread leptospirosis, toxoplasmosis, salmonellosis and bovine Tb. Rodents carry leptospirosis, salmonellosis, *Streptococcus moniliformis* and giardia. Wasps pose a high threat to human health, dependent on susceptibility and number of stings. People can also become more sensitised to wasp stings after repeated exposure. (More people are killed by wasp stings than by any other animal attack in New Zealand).

Argentine ants are significant ecological pests in coastal and shrubland habitats, consuming chicks on the nest and lizards everywhere. They are also one of the worst “lifestyle” pests in the world, preferring houses where they rapidly attain plague proportions, destroy foodstuffs and even access the inside of fridges, microwave ovens and screw-top jars. These ants can seriously affect asset and property resale values.

Kauri dieback disease (KDD) has been well documented in the Waitakere Ranges including in the Piha environs and is now the subject of a rahui and local track closures by Auckland Council. There is no known cure for KDD and although prophylactic treatments can keep large trees alive, this does not protect small rickers, seedlings, germinating seeds and the wider forest ecology. KDD can be prevented from spreading, and existing iconic and large trees protected, if a programme of protection is implemented. If not, loss of kauri to Piha would be an immense cultural, ecological and historical loss to the community. The Project will develop its own KDD protocols and/or comply with protocols developed and agreed between Auckland Council and Te Kawerau a Maki.

4. Benefits of a Pest Free Piha Project

Piha without the worst ecological weeds and pest animals will be a much more scenic place. Restoration of native bush and other habitats has positive impacts on local asset values.⁴ The ecological values will soar, and this will bring a sense of community pride. Also, the sharing of efforts and successes will create greater community adhesion and resilience, and make Piha a nicer place to live in.

⁴ “Valuing Natural Assets”, NZIER (2013)

https://nzier.org.nz/static/media/filer_public/3a/38/3a38c3d5-faae-46b3-9ab8-6f5576c8cc2c/nzier_public_discussion_paper_2013-03_-_valuing_natural_asset

The Project will use local expertise and where possible employ local labour.

The Project will use best-practice pest management methodologies, and these will serve as a model for other communities and groups, particularly in the Auckland Region.

5. Risks of a Pest Free Piha Project

The risks associated with the Project are operational, financial and reputational. Operational risks include non-target plant damage, herbicide residues in soil and operator exposure during weed control operations. These can be largely avoided and certainly minimised by use of best-practice control methods. The methods include non-spray options, protective measures, use of trained operators, temporary signage, etc.

There are also operational risks associated with pest animal control. Chiefly these comprise risks to pets of exposure to baits and pest carcasses, operator exposure, secondary kill of native animal species and soil residue. Secondary kill, exposure to carcasses and operator exposure can all be pre-empted by use of non-toxin methodologies (e.g. traps) and use of non-residual toxins. Risks to pets of bait exposure can be minimised or pre-empted by deployment of specialised bait stations that are accessible only by the nominated pest.

While there is an initial lack of interest of some property owners/occupiers in their property being included for pest animal control, pests move to varying degrees and the overall programme will cover the home ranges of all pests except mice and Argentine ants. It is difficult to envisage anyone refusing to allow ant control on their property⁵.

Similarly, concerns over herbicide use, privacy or a fondness for some weed species mean a range of approaches will be needed for pest plant control, including alternative control methods, working at nominated times only, explanation of weed impacts, follow up planting programmes and donation of non-weedy alternatives.

Financial risks are generally confined to budget over-runs due to poor planning, or programme failure due to insufficient budget. Budget over-runs can be prevented by regular budgetary updates, resource reallocation and moving of programme timelines. Failure to complete eradication programmes due to insufficient budget can be ameliorated through the targeting of specific weeds throughout the community, as well as locality-based control, resulting in most programmes having a long term or permanent benefit component e.g. removal of all Cape ivy, wild ginger, moth plant etc.

Reputational risks can accrue to the Project, AC and the various community groups involved in implementing the Project. Risks can be political, local and personal. Risks occur when programmes make mistakes (e.g. non-target weed control, pet poisoning), or are portrayed negatively in the media or community. Political risks occur when politicians have not been informed initially and updated regularly, and clear accountabilities have not been

⁵ Auckland Council Biosecurity has implemented eradication programmes for Argentine ant on Great Barrier Island and Kawau Island. Over 300 properties have been treated. No landowners and occupiers have objected to the programmes, rather they are widely supported.

established. These risks can be pre-empted by establishment of clear accountabilities (who, and for what), use of best-practice pest control methods, and constant communication from Project management to the community, local leaders and regional politicians.

6. Integration and Promotion of Pest free Piha Project with other initiatives

Integrating the Pest free Piha Project with other programmes and initiatives can reduce costs, reduce duplication, remove contradictions and reduce the actual pest control burden. For instance, extending the north eastward boundary of the Project to the Ark In the Park boundary will ensure that no pests cross that border from either side, which will reduce costs and accrue greater benefits to both projects. Integrating the Project with existing coast care, weed control and pest control groups will bring added value to all participants.

The Pest free Piha Project will prioritise integrating its efforts with all those groups and individuals doing similar work within and adjacent to its boundaries. This will include seeking agreement on species to be managed, types of programmes, allocation of areas and tasks, sharing of resources, reporting lines, and sharing of publicity and communications. Current examples include Piha Coastcare, Rayner Weeders, the Beach Valley Road Project, Our Backyard Piha Project and the grey-faced petrel recovery programme at Te Waha Point among others initiatives.

The Waitakere Ranges Local Board has developed a Waitakere Ranges Strategic Weed Management Plan and produced, with Forest and Bird, a poster listing the worst weeds in the Waitakere Ranges Heritage Area and how to control them. The Board is funding a mapping and control programme for climbing asparagus at Piha (and Huia), implemented by Eco Matters (Our Backyard Piha Project). Several Auckland Council environmental services function in Piha, with a range of biodiversity programmes attending to both pest weeds and predators, some implemented by resident rangers and others by contractors.

Integration will also occur with wider national and regional initiatives, e.g. DOC's Biodiversity Action Plan 2016-2020, Predator Free NZ 2050, and Auckland Council's Indigenous Biodiversity Strategy 2012 and *Te pai me te whai rawa o Tamaki: Our commitment to the environment and green growth* document. This document notes that the region's natural ecosystems and native species are under threat from pest plants and animals, loss of habitat, pollution and climate change. It commits to protecting and enhancing Auckland's biodiversity now and as a legacy for future generations, identifying the following initiatives:

- more significant ecological areas on land and sea
- enhanced care and preservation of volcanic cones by the Tupuna Maunga o Tamaki Makaurau Authority
- large-scale pest control at places like the Hunua Ranges
- on-going funding for community planting programmes and wetland restorations
- sustainability education programmes in schools
- providing natural habitats across our cities as refuges for our native wildlife

A Communications Plan for the Project will be developed, in consultation with the community. The Project will promote its efforts and the efforts of its attendant

neighbourhood groups through its website and regular online newsletter, which will also be printed and posted up at key sites e.g. the Piha Store and the Piha Library. It will also be emailed to sponsors and all those requesting it.

The Project will attempt to coordinate its programmes with AC rules for dogs, so that risks to these pets are pre-empted, negative dog impacts reduced, and freedom to exercise dogs remain as they are now, while at the same time socialising the need to comply with existing dog rules to protect native wildlife.

The Project will encourage a community-based approach to management of domestic cats, while taking steps to ensure their safety of domestic cats including adequate forward notice of pest control where feasible. Options to reduce the impact of domestic cats on native wildlife will be promoted.

7. Timeline and Scope of Project

This Plan outlines overall goals and objectives for 2018-2025. A fully costed 3-year Action Plan for Stage 1 of the Project will be prepared as soon as this Plan is approved. The Plan will be amended as resources require. Establishment and alignment of neighbourhood groups will commence as soon as the Plan is approved.

Essentially a Project on private property, Pest free Piha will liaise closely with the authorities responsible for public land in Piha – particularly since many of the worst weed sites are in road reserves. Within this scope, the Project will manage plant and animal pests to the level of zero density i.e. where the pests have essentially no impact on ecological and lifestyle values. It is acknowledged that few if any pest species can be eradicated from a discrete area of the New Zealand mainland without creation of a pest exclusion fence. The exclusion fence option is not practical, affordable, or considered to be effective for Piha, but Ark in the Park demonstrates a local alternative. Instead, current control technologies will be implemented, and new technologies trialled wherever possible. Pest animals will be controlled on a whole-of-Piha approach i.e. as one area within the boundaries of the Project.

The list of pests to be included has been defined by the Auckland Regional Pest Management Strategy and the Waitakere Worst Weeds DOC Dirty Dozen lists. It reflects advice from AC Biosecurity and DOC staff and consultation with the Piha community. Pest plants will be controlled on both species-based and area-based approaches.

7.1 Pest animals

The following pest animal pest species will be included:

- possums
- rats (mice as a by-kill)
- all mustelids (stoats, weasels, ferrets)
- feral pigs, in cooperation with Auckland Council
- hedgehogs
- rabbits
- Argentine ants (local eradication)
- *Vespula* wasp species (seasonal control in cooperation with AC)

7.2 Pest Weeds

The following weed pests will be included:

Years 1-3

- climbing and bushy asparagus, in cooperation with Our Backyard Piha Project.
- agapanthus
- cape ivy
- moth plant
- pampas
- wild ginger
- tradescantia
- Japanese honeysuckle
- gorse
- woolly nightshade
- jasmine
- boneseed
- cotoneaster
- gazania
- lupin
- blue morning glory
- smilax
- alligator weed
- aristeia
- plectranthus
- African pig's ear

Years 4-7

- English ivy
- Banana passionfruit
- Chinese privet
- tree privet
- all freshwater weed species
- phoenix palm
- Coral (Flame) tree

Other species will be added as resources allow. These could include:

- selaginella
- giant reed
- monkey apple
- pitted crassula
- Mexican daisy
- tuber ladder fern
- ice plant and succulent species on the coastline
- Tasmanian Ngaio



Piha's roadside weeds – pampas, agapanthus, contoneaster and bamboo are all visible in this snapshot



Pampas and other invasive weeds have invaded this former fire site

7.3 Pathogens

Kauri dieback disease, other *Phytophthora* spp as and if dictated by the AC Pest Management Plan. The aim will be to assist programmes that sequester the disease at all locations and prevent further spread, and to apply suitable technologies to control and hopefully reduce disease impacts.

8. Pest free Piha Project Boundary

The proposed boundary is as shown in Appendix I. Essentially it is 100 metres from the last lines of houses in Te Ahu Ahu Rd, Log Race Rd, Piha Rd, North Piha Rd and Glenesk Rd. This covers all of Piha, north to Te Waha Point. This ensures that it overlaps with pest control on Regional Parkland in all directions.

9. Governance and Administration

Governance will initially be by Protect Piha Heritage Society Inc. Management Committee, pending establishment of Pest free Piha as a stand-alone charitable entity. Management will be via the Operations Manager reporting to the Management Committee. Neighbourhood Groups in each road will be supported and coordinated by the Operations Manager. Administration may be outsourced to a local conservation organisation if feasible.

A guiding principle will be community empowerment, where neighbourhood groups in each road will work inclusively. Each neighbourhood group will work at its own pace, using its own methods as long as these are approved by AC Biosecurity as complying with best-practice guidelines and are compatible with this Plan and its targets.

One or more MOUs will be developed with AC, Auckland Transport (AT) and Te Kawerau a Maki to guide relationships between these parties. AC Biosecurity will be invited to advise on and contribute to monitoring the activities. An independent audit of the entire Project will be undertaken after 3 years.

The Project will be undertaken using best practice as defined in the AC Pest Management Best Practice Manual and/or website. In addition, the Project will encourage implementation of novel approaches and new technology, provided that these approaches are at least as safe as existing best-practice. This may include establishment of trials, for physical and social science purposes. In this regard, the Project will establish links to biosecurity, biodiversity and social science leaders (e.g. University of Auckland, Massey University, Waikato University, Unitec, Crown Research Institutes, commercial research providers)

The Project will measure progress using an extensive initial baseline survey, including photo points and pest prevalence data, and regular monitoring of all inputs, outputs and outcomes thereafter, to ensure that satisfactory progress is made towards objectives. This will include AC Biosecurity and Biodiversity staff, students and residents.

The Project is intended as a pilot that will inform future comprehensive community approaches around the Waitakere Ranges and throughout Auckland (including Pest free Auckland by 2050), taking a highly strategic approach to enable replication - establishing baselines, milestones and key performance indicators.

10. Project Partners

Auckland Council Biosecurity, Biodiversity, Regional Parks, Local Parks, Community Programmes; Waitakere Ranges Local Board, Department of Conservation, Mana Whenua, Waitakere Ranges Protection Society, Ark in the Park (Forest and Bird), Piha Coastcare, Piha Ratepayers and Residents Association, Protect Piha Heritage, Piha Kids Charitable Trust, nearby schools, Piha Surf Lifesaving Club, Kauri Rescue and Kauri Dieback initiatives.

Mana whenua (Te Kawerau a Maki) is supportive of the Project and the iwi's relationship with the Project will be governed by an MOU. Te Kawerau a Maki have land at Piha (Taitomo Island) and one of the last villages occupied on the coast was situated at Piha. Through cooperation with the Project the iwi's kaitiaki role will be strengthened and its Piha presence enhanced.

It is anticipated that ultimately there will be local weed and pest control groups in all roads in Piha (12-15 in total) organising and/or undertaking control and monitoring programmes. Where necessary, professional weed and predator control providers will be contracted.

11. Resourcing Options

- Auckland Council, through its Biosecurity, Biodiversity, Community Programmes, Regional Parks, Local Parks and Pest Free Auckland budgets.
- Auckland Transport, through its roadside pest plant budget
- Department of Conservation Community Fund, Battle For the Birds, War On Weeds and other initiatives
- Other governmental funding e.g. Pest Free New Zealand, National Science Challenge
- Philanthropic organisations and foundations
- Other non-government and charitable funding organisations
- Private sector sponsorships
- Neighbourhoods and individuals in Piha and elsewhere

APPENDIX I – Approximate Boundary of the Pest free Piha Project

