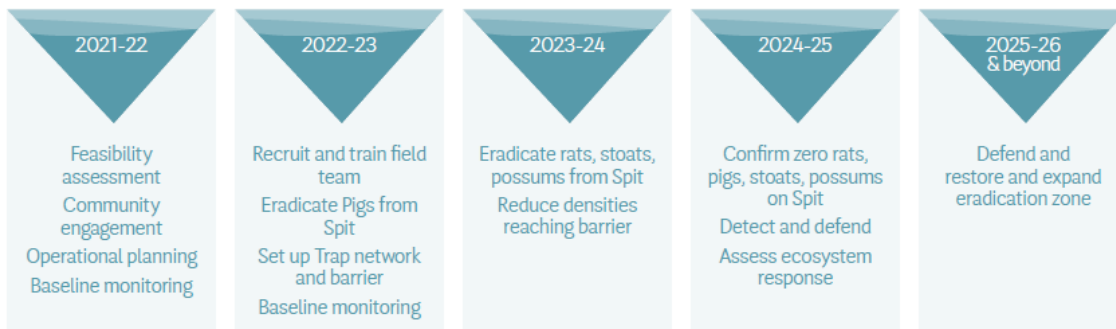


# Pest Free Onetahua Farewell Spit – Operational Plan Details

## Our Mission

Pest Free Onetahua aims to completely remove possums, rats, stoats and feral pigs from Onetahua Farewell Spit by 2025 and prevent their return.

## Project Timeline



## The Pest Free Onetahua Eradication Plan

The plan involves several stages for each of the four target pest species, following best practice already proven to work in other landscape scale pest eradication programmes. The full network of traps will be installed prior to an intense population knockdown phase. This will be followed by a phase of mopping up the survivors and tracking down the last few individuals. The project will prevent any reinvasion by pest species by a fit-for-purpose trap network. Lastly, a surveillance network will be maintained to detect any arrivals and respond immediately.

The main steps in order of application are:

1. Construct a modified stock fence along the along the Puponga Hilltop Walk and extending out onto the tidal flats. The fence will be pig-proof and include modifications to slow possum and stoat invasion and funnel them into an intense fence line trap network
2. Install a moderately intense trap network six months before the main eradication phase. This will remove and suppress possums and pigs to low densities over the Puponga Farm Park and stoats and rats out to Pakawau Bush Road.
3. Eradication of pigs from the Spit to a boundary west of Triangle Flat using dog teams and with aerial hunting using thermal imaging gear.
4. Eradication of rats, stoats and possums from the Spit using a double-hit aerial 1080 operation for the initial population knockdown followed by removal of survivors using trapping, dog teams and bait stations.

5. We will prevent reinvasion of the spit by firstly, suppressing the numbers of pest predators that arrive there by:
  - a. Pigs: Trapping in the farm park area, and a pig proof fence along the Puponga Hilltop Walk, extending out onto the tidal flats.
  - b. Possums: A combination of intense trapping across the high value habitats on the Farm Park and defending the fence along the Puponga Hilltop Walk.
  - c. Stoats: Moderate intensity trapping from Pakawau Bush Road and Whanganui Inlet to the base of the Spit including Pakawau Forest and private land, and high intensity trapping at the fence line.
  - d. Rats: A combination of the stoat trapping network to the west of the fence and a virtual barrier of intense trapping of rats at the base of the spit to the east of the Farm Park.
6. On-going surveillance to detect pests arriving at or beyond the fence will include chew cards, tracking tunnels and lured cameras (eg <https://zip.org.nz/findings/2020/8/using-lured-trail-cameras-to-detect-predators-at-low-density>). Any detections will trigger quick response of intense trapping and hunting.
7. Developing innovative trapping and detection methods for defending the intertidal flats, learning from other pest free projects around the country, such as the floating traps used at Waiheke Island, and avoiding any risk of whale entanglement.

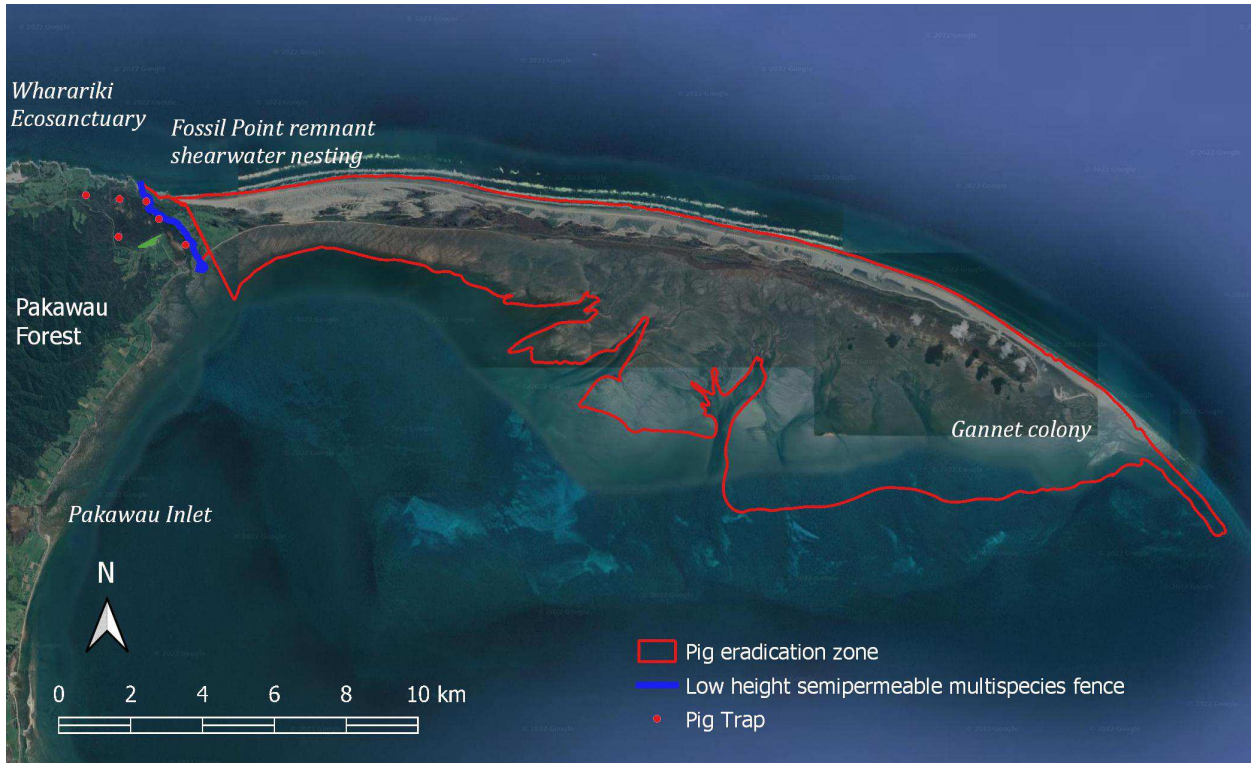
The trap network that we expect to install is shown in the table below and designed to meet density (traps/ha) and distance (metres between traps) criteria. A selection of different trap types will be used. We will monitor how our network is performing and modify our methods to meet our specific landscape requirements. The network will be fine-tuned on an ongoing basis and as new research and technology becomes available.

Table: Approximate numbers of different types of traps to be installed (see maps)

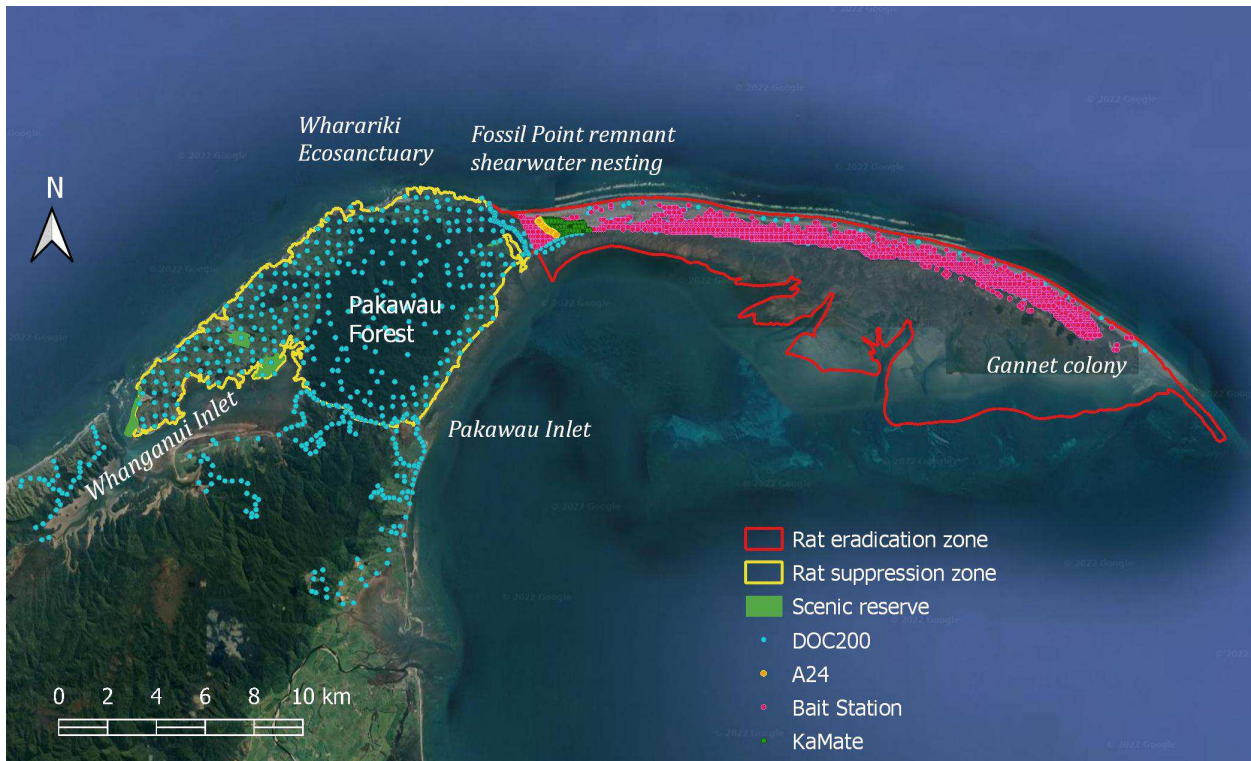
	DOC200s	PodiTraps	A24	AT220	Bait stations	KaMate	Pig traps	Possum Kill traps	Stoat AT220
<b>Spit</b>	129	12	0	90	1355	1473	0	0	190
<b>Farm Park</b>	74	21	58	5	109	410	6	0	0
<b>Other</b>	486	23	0	0	0	0	0	551	0
<b>Total</b>	<b>689</b>	<b>56</b>	<b>58</b>	<b>95</b>	<b>1464</b>	<b>1883</b>	<b>6</b>	<b>551</b>	<b>190</b>

The Plan has been designed to be adaptable to whatever outcomes arise, with the goal being to increase biodiversity of the spit and particularly provide safe habitat for the return of nesting seabirds and improved habitat for nesting and feeding waders.

### Pig Eradication Device Layout

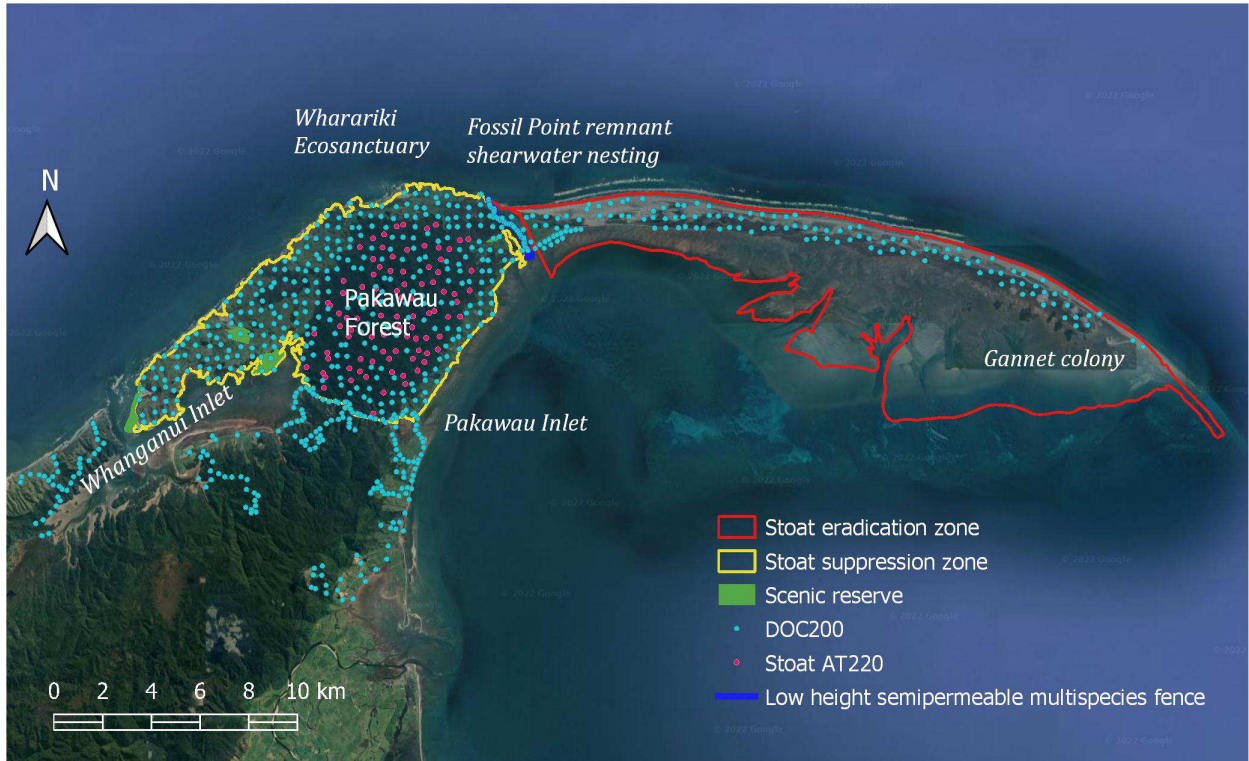


### Rat Eradication Device Layout

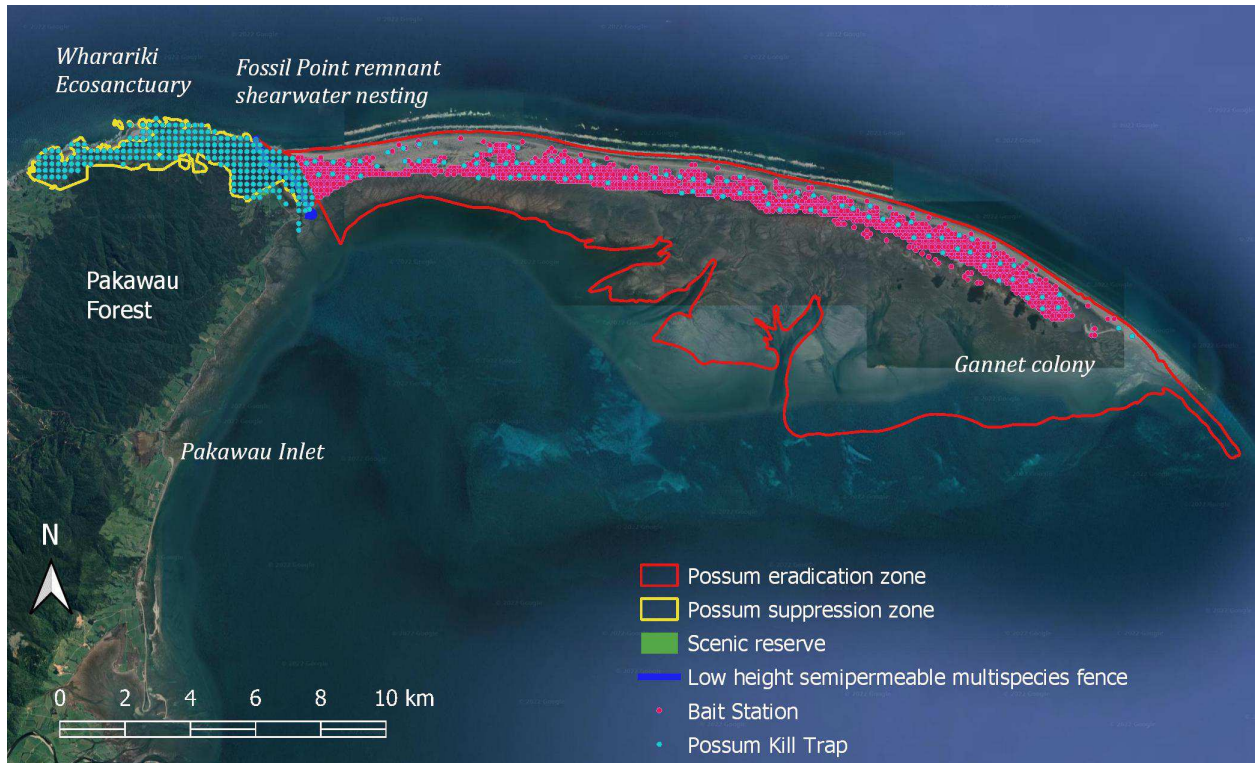




### Stoat Eradication Device Layout



### Possum Eradication Device Layout



## How was the plan designed?

A feasibility study was carried out by Onetahua Restoration, with funding from PF2050. A separate entity has formed to implement this project – Pest Free Onetahua.

We engaged Ahikā Consultants to conduct the feasibility study on eradication of all introduced pest predators over the area from the Spit to Pakawau Bush Road. Ahikā consultants lead the Dunedin predator free project and are hugely experienced with large scale predator eradication operations just like ours.

Ahikā considered the information available about the pest species that are present, the terrain, and the likely benefits of eradication. They considered the methods that are being successfully employed by the other big predator eradication projects around the country (now 20 of them) and the methods that are in research and development. They considered whether it was feasible to eradicate the main pests without using broadcast pesticides.

At the same time we asked the local community for their views on the project and the use of pesticides. We learned that the majority of the population living close to the project area and the wider Golden Bay population want these pests gone

Taking on board the community views, Ahikā developed a plan of what can be feasibly done and how to do it. This was peer reviewed by other experts including from Project Janszoon and Pest Free Banks Peninsula, DOC and TDC.

Through this process the mission was divided into stages. Rather than attempting to eradicate all introduced pest predators from the Spit to Pakawau Bush Road the project has been reduced down to a more manageable first stage of eradication on the Spit and suppression over the buffer zone to prevent return to the Spit.