**Te Pākeka Maud Island Biosecurity Plan**

Quarantine, Surveillance and Incursion

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# INTRODUCTION TO THE PLAN

### Purpose

This plan formalises the biosecurity arrangements for Te Pākeka Maud Island.

It is an operational specification of what needs to be done to secure Te Pākeka Maud Island from the threat of incursions by pest organisms of all taxa.

This is a living document. Tasks, standards and role assignments will be updated continually to align work specifications with changes in best practice and expert knowledge.

The plan does not justify or explain its biosecurity measures and methods. If needed, explanations can be found elsewhere (see especially [Island Biosecurity Homepage](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3176760&dDocName=DOC-2512306) DOCCM-2512306).

The plan is not intended to serve as a tool to educate audiences new to biosecurity requirements. It maps the work assuming that people assigned to its tasks on the island and mainland already know what they are doing and why.

### Audiences

The plan’s primary audiences are

* the DOC staff responsible for the island’s biosecurity
* DOC managers, colleagues and external associates who support their work on the ground.

All DOC staff and other visitors to Te Pākeka Maud Island will be bound by the provisions of this plan, without exception.

### Structure

The plan comprises three parts.

**Part One**—**Te Pākeka Maud Island biosecurity at a glance**is intended to give approving managers an overall statement of purpose, outcome, measures and goals. By way of context, it lists biosecurity risk pathways to Te Pākeka Maud Island along with the measures DOC will apply to shut them down.

**Part Two—Biosecurity blueprint** is the working part of the plan. It gives a high-level summary of what the measures listed in Part One mean for biosecurity work on the ground. Outreach, reporting and resource needs are specified too.

**Part Three—Operational annexes**comprises detailed work prescriptions for biosecurity functions. Prescriptions include goals, specific tasks, standards and role assignments.

### Ownership, update and review

The island ranger on Te Pākeka Maud Island is the gatekeeper for this plan. S/he will update the plan annually or sooner as circumstances and new knowledge require.

The island ranger has primary frontline responsibility to ensure that all visitors to the island follow the plan’s biosecurity measures to the expected standards.

# PART ONE Te Pākeka Maud Island biosecurity at a glance

Te Pākeka Maud Island is a Scientific Reserve whose preeminent protective legal status reflects the island’s extreme sensitivity to the harmful effects of unwanted organisms.

### Biosecurity outcomes

Natural systems and processes on Te Pākeka Maud Island Scientific Reserve are conserved in a pest-free state and function in a healthy condition.

### Performance measures

Biosecurity is the top functional priority for work on or associated with Te Pākeka Maud Island

Pest-free status is maintained year-round

Biosecurity on and off the island receives the time and resources it requires

Prevention receives more emphasis than response

Three-yearly audits confirm the adequacy of the plan’s biosecurity measures

### Biosecurity principles

All people connected with Te Pākeka Maud Island understand the significance of the island and the external threats to its plants, animals and natural systems.

All DOC and other people connected with Te Pākeka Maud Island know what their biosecurity responsibilities are and comply with those duties.

DOC exercises its duties of care as island custodian to a conspicuously high standard through sound biosecurity practices and genuinely effective messaging to non-DOC audiences.

Biosecurity practices comply with best practice and expert scientific and technical advice.

All other work fits around biosecurity, not vice versa.

The island ranger holds all necessary mandates to insist on compliance with biosecurity measures.

The island’s borders are closed to pests in the most efficient and effective ways.

### Threat assessment for Te Pākeka Maud Island

Te Pākeka Maud Island is exposed to risks from pests of all taxa on adjacent landmasses through human-assisted and natural pathways ([Annex 1](#_Annex_1_Risk)).

#### Human pathways

The primary pest pathways are associated with human contact with the island. These pathways will be treated at all times as open to multiple forms of plant and animal pests.

Biosecurity will anticipate pests on all types of traffic (DOC, commercial and public) using boats or helicopters travelling from multiple points of departure in the Sounds and beyond.

DOC traffic will be treated as the dominant threat because of its frequency, freight complexity and the persistent phenomenon of operational complacency.

Other servicing traffic will be treated as very high-risk because the craft (barges, mail boat, water taxis, helicopters) are not so readily subject to DOC control or scrutiny, often arrive from uncontrolled destinations and operator buy-in is not assured.

**Table 1** lists the pest threats most likely to reach the island by human means. Control measures for these will be adequate to intercept other known and novel pest organisms.

**Table 1** Pest organisms of primary biosecurity interest expected to reach Te Pākeka Maud Island by human means.

| **Species** | **Threat characteristics** |
| --- | --- |
| Rats | Common, sometimes super-abundant at source  Can swim ashore from vessels > 2 km distant  Can breed and colonise very rapidly  Broad prey range |
| Mice | Common, sometimes super-abundant at source  Capable of swimming ashore from vessels  Difficult to detect  Can populate the island very rapidly  Containment and eradication are not assured |
| Stoats | Known to travel in vessels and machinery  Very able swimmers  Extremely difficult to eradicate  Highly destructive |
| Plague skinks | Highly invasive  Difficult to distinguish from native species  No known means of containment or eradication |
| Darwin and Argentine ants | Highly invasive  Difficult to detect in transit  Containment and eradication are not assured |
| Weeds | Common at source  Diverse range of species, some highly adventive  Difficult to detect in transit  Delayed germination and appearance  Multiple modes of transmission |
| Pathogens | Extremely difficult to detect  Rapid mutation into new forms  Cryptic effects  Multiple modes of transmission  Control and elimination are not assured |

#### Naturally occurring pests

Pests such as stoats, weka, pukeko and starlings are capable of reaching the island by flight or swimming at any time. They will be treated as no less dangerous as predators and disease vectors.

### Classes of biosecurity action

Te Pākeka Maud Island will be protected to pathogen level from pest-organism threats through the three recognised classes of biosecurity action:

|  |  |  |
| --- | --- | --- |
| **Quarantine** | All threat pathways  All DOC and non-DOC visitors  All means of transport  All forms of equipment and freight | A full range of inspection routines intended to intercept pests of all taxa at or before points of departure on the mainland and at the island’s border |
| **Surveillance** | All pest organisms | Comprehensive on-island vigilance using appropriate tools and checking processes to detect, identify and (preferably) kill pests on arrival |
| **Lethal first response** | All feasible pest taxa | Immediate readiness with the correct tools, methods and decision-making procedures to eliminate pests before they establish |

The Operations Manager Sounds will support these definitive measures by ensuring the following:

|  |
| --- |
| **Strict formal controls on access** **to the island** (entry permits, concession conditions) |
| **Highest functional priority** for the biosecurity programme |
| **Adequate resourcing** for all biosecurity tasks |
| **Clear definition** of operating standards, resource needs, role definitions and task assignments |
| **Explicit mandates at ranger level** to enforce biosecurity measures and landing restrictions |
| **Future-proofing** of protection measures through audit, review and update |
| **Outreach and messaging** which is appropriately targeted and supported by social research |

# PART TWO Biosecurity blueprint

The following section maps in summary form the actions DOC will take on the ground to protect Te Pākeka Maud Island from pest organisms of all taxa. This is the blueprint for the island’s biosecurity arrangements.

Detailed operational prescriptions, standards and responsibilities for these actions are linked in [PART THREE—Operational Annexes](#_PART_THREE_—).

### In broad terms

In broad terms, biosecurity for Te Pākeka Maud Island will be achieved through strict compliance with biosecurity’s three orthodox modes of action:

* Quarantine
* Surveillance
* Lethal responses to incursions

Biosecurity thresholds will be set **to pathogen standards** for the island. Standards maintained consistently to this intensity will intercept most known and unknown pests.

DOC will manage all feasible natural and human-assisted pathways ([Table 1](#_Human_pathways)) to intercept the following classes of pest organism:

* Vertebrates (rodents, mustelids, reptiles, amphibians, cats, hedgehogs, possums, weka, pukeko, starlings)
* Invertebrates (especially invasive ants)
* Weeds
* Pathogens and micro-organisms (especially those transmitted through contaminated soil or species translocations)

Each suite of biosecurity measures will be supported by

* appropriate authorities, support and resourcing from Operations Manager Sounds
* best-practice advice from biosecurity experts elsewhere in DOC
* effective messaging in- and outside DOC.

Biosecurity measures will apply to all island residents, visitors, vessels, aircraft and freight destined for the island, whether landing or mooring in proximity.

### Biosecurity leads

The Operations Manager Sounds will designate the island’s resident rangers and at least one mainland-based ranger to act as the operational leads and go-to experts for all aspects of Te Pākeka Maud Island’s biosecurity programme.

These leads will have full authority to insist on compliance with biosecurity measures. They will have the power to veto movements of people and goods to the island.

## 1 Quarantine

Comprehensive quarantine measures will be in place at or before points of departure for the island and upon arrival at the island.

Measures will comprise

* pest management in- and outside secure rooms, quarantine facilities, hangars and moorings
* close inspection for unwanted organisms before anyone or anything is cleared to travel
* cleaning and disinfection of goods, gear, containers and means of transport
* rejection of contaminated or suspect goods
* repacking wherever possible in approved pest-proof containers
* substituting of approved equipment for hazardous gear
* rechecking of all quarantined gear arriving on the island
* careful control of people, gear and craft movements between islands
* disease and hygiene management for species movements to and from the island
* upgrades to DOC’s quarantine facilities and associated practices
* mandatory permitting for movements of people, craft and freight to the island

Quarantine measures will apply to all

* DOC and non-DOC visitors to the island and their gear
* vessels and aircraft servicing the island
* marina berths and wharves (Havelock, Duncan Bay), hangars (Omaka, Woodbourne)
* vehicles, trailers and equipment connected with the movement of people or freight
* DOC or non-DOC quarantine stores
* mainland suppliers with whom DOC has biosecurity agreements in place

### 1.1 Quarantine at points of departure

Unless secure alternatives are approved by biosecurity leads, all traffic to the island will pass through DOC’s secure quarantine facility at DOC Havelock Base prior to departure.

Inspection is mandatory regardless of departure point (Havelock marina, Duncan Bay, Omaka or Woodbourne airfields).

#### 1.1.1 Preparation for pre-departure inspections

All visitors and suppliers of freight will receive adequate information about mandatory biosecurity checks well ahead of departure time.

All DOC staff, contractors and other visitors will give island rangers and mainland biosecurity leads no less than five working days’ notice of their trips.

Island work programmes for all DOC staff and contractors will allow enough time to prepare for checks and for the checks themselves.

There will be zero tolerance for last-minute biosecurity inspections.

#### 1.1.2 Differing inspection regimes

Inspection regimes will be adjusted according to the type of contact with the island. Visitors and freight will be classified as

|  |  |  |
| --- | --- | --- |
| [Routine](#_Annex_2_)  Annex 2 | Organised trip (day, overnight or longer) via boat or helicopter for programmed work, education, scientific monitoring, study, survey, infrastructure maintenance, normal resupply | * multiple types of gear * tools and equipment * food * fuel * footwear items |
| [Extraordinary](#_ANNEX_3_EXTRAORDINARY)  Annex 3 | Organised day-trip by charter boat for summer programme or other large group visit | * food * footwear * portable gear |
| [Unusual](#_ANNEX_4_UNUSUAL)  Annex 4 | Delivery of awkward, oversize or unusual freight | * kayak, dinghy, small yacht * outboard motor * fuel * tractor, ATVU/LUV * fire equipment refresh |

### 1.2 Inspections for differing modes of transport

All vessels and aircraft will be approved as means of transport to the island only if they meet full quarantine standards for [DOC craft](#_ANNEX__5) (Annex 5) and [non-DOC](#_Non_DOC_Transport) craft (Annex 6).

### 1.3 Havelock quarantine store

Unless secure alternatives are available (e.g. at DOC Picton), the Havelock quarantine store will be the primary base for

* inspections of all people and freight destined for the island
* storage of clean (checked) gear and freight
* cleaning and storage of sanitised quarantine containers

No other unrelated or contaminated materials will be permitted in the inspection or clean rooms.

Biosecurity leads will keep the facility fully secure through

* [approved management practices](#_ANNEX_7_Operational) (Annex 7)
* [strict compliance with operational standards](#_Minimum_Standard)
* scheduled maintenance in- and outside
* structural and equipment [upgrades](#_ANNEX_8_Upgrades) (Annex 8)

### 1.4 Quarantine on arrival

All incoming cargo, gear, people and supplies will land at the wharf and designated helipads only.

Regardless of landing point, all cargo, gear, people and supplies will be checked in Comalco Lodge’s secure quarantine room.

Mandatory standards for [facility upkeep and inspections](#_ANNEX_9_) will apply (Annex 9).

Cargo too large for the quarantine room will be inspected before disembarkation from vessels.

Skippers and pilots will abort approaches to the island if detecting or suspecting a quarantine breach.

### 1.5 Quarantine for work-related movements between islands

Work-related movements to Te Pākeka Maud Island from other islands in the Sounds, or from Te Pākeka Maud Island to other islands will require full quarantine checks of people, gear and DOC vessels in both directions and at each stage in journeys, as normal.

Standards for [Routine Visits](#_Annex_2_), [Reverse quarantine](#_ANNEX_11_REVERSE) (Annex 11), and [DOC vessels](#_ANNEX__5) will apply.

### 1.6 Quarantine for handling of wildlife

Proper hygiene practices will apply before, during and after handling wildlife to minimise the risk of intra- and interspecific transfer of disease.

The mandatory [Frog Handling Protocol](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-214757) (DOCDM-214757) applies for handling Maud Island frogs *Leiopelma pakeka*.

### 1.7 Quarantine for species translocations

All equipment, people and modes of transport associated with translocations will be quarantined in accordance with translocation guidelines (see below) before any species is landed on Te Pākeka Maud Island.

Doubts or uncertainties about quarantine at any stage of translocation planning will be referred for answers to DOC’s Wildlife Vet and Co-ordinator Wildlife Health ([Annex 21](#_ANNEX_21__3)).

Quarantine for species translocations to and from the island will comply with all rules applying in the following:

|  |  |
| --- | --- |
| SOP for [Translocations](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-315121) (DOCDM-315121) | Guides the translocation process |
| [Translocation Proposal](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-59825) (DOCDM-59825) | Section 6—Measures to minimise pathways for plant and animal pests  Section 7—Disease management based on the SOP for (DOCDM-442078). |
| SOP for Management of [Wildlife Health](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-442078) (DOCDM-442078) |  |
| [Tool for Assessing Disease Risk](dme://DOCDM-655538/) (DOCDM-655538) |  |
| [Plan for Management of Translocation Health](dme://DOCDM-54393/) (DOCDM-54393) |  |
| [Hygiene checklist](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-635558) (DOCDM-635558) |  |

### 1.8 Quarantine for unauthorised landings

All unauthorised landings will be treated as potential biosecurity breaches. Island rangers will attempt to make contact with and learn as much as possible about all people who have landed without a permit to do so.

Responses to unknown vessels approaching or landing on the island will adopt the standards outlined in [Annex 12](#_ANNEX_12_UNAUTHORISED). These are intended to safeguard the welfare of the island and its rangers.

### 1.9 Quarantine for authorised private vessels belonging to DOC rangers

DOC rangers will be permitted to moor or land their private vessels only if they have approval from the Operations Manager Sounds to do so. Vessel quarantine and uses must also comply with the quarantine standards listed in [Annex 13](#_ANNEX_13_AUTHORISED).

### 1.10 Mitigation of pest risks associated with permanent occupation of the island

Gardening practices will be managed carefully so that new pests are not introduced or spread.

The importation of live plants, potting mix and compost is prohibited.

Composting is permitted but potentially hazardous food waste may not be composted.

See [Annex 14](#_ANNEX_14_GARDENING,) for standards applying to gardening, composting and disposal of hazardous food scraps.

## 2 Surveillance

As with quarantine, post-border surveillance functions will take precedence over all other routine work on Te Pākeka Maud Island.

The island will be protected post-border by

* a comprehensive network of detection devices to intercept animal pests as soon as possible after they arrive, and before they can establish
* scheduled annual inspections for weeds
* at least two scheduled visits by pest-detection dogs each year
* daily vigilance by island rangers and workers
* additional checking/inspection as required for specific biosecurity threats (eg: myrtle rust, totara dieback programmes)

Surveillance by these means will serve three functions:

* detect and (ideally) kill pest organisms quickly and humanely
* identify pest species accurately so that elimination measures are appropriate
* confirm eradication or removal

Detection and kill devices will comprise stainless steel DOC 200 traps, mouse traps, tracking tunnels, chew-cards, invasive ant plots, non-rodent glueboards, toxic bait stations and Havahart live cage traps.

Combinations of these will be deployed

* on all island tracks
* at coastal sites of likeliest arrival
* where human activity is highest (wharf area, service and residential buildings, compost)

Island staff will have the primary responsibility to sustain the effectiveness, versatility and reach of the surveillance regime following common-sense [maintenance standards](#_ANNEX_15_SURVEILLANCE) (Annex 15).

Use of surveillance devices and complementary measures (pest-detection dogs, constant vigilance) will comply with clear [operational prescriptions](#_ANNEX_16_) (Annex 16).

Island rangers will ensure that all surveillance devices are in constant readiness and serviced regularly according to [fixed maintenance and replacement schedules](#_ANNEX_17_) (Annex 17).

All devices will be clearly marked, easily accessible and free of obstructions capable of compromising function.

To insure against complacency and blind-spots, all surveillance practices and policies will be to scrutinised during scheduled peer-reviewed audits of the island’s biosecurity arrangements.

All new staff will be familiarised with the surveillance network during induction.

### 2.1 Checking frequency for animal pests

Surveillance for animal pests will be scheduled at intervals tailored to relative levels of threat (see **Table 3** below)

Checking routines will be rotated between staff to minimise complacency and maximise consistency.

**Table 3** Frequencies for surveillance checks year-round on Te Pākeka Maud Island

|  |  |  |
| --- | --- | --- |
| Weekly | Sites of likeliest arrival  Sites of highest human activity | Wharf and adjacent landings  Home Bay buildings and dwellings |
| Monthly | Island interior | All tracks on the island  Wharf and adjacent landings  Home Bay buildings and dwellings |
| Monthly | Coastlines | Beaches and landings  Beach debris |
| Two-monthly | Tracking tunnels | All island tracks  Home Bay |
| Twice a year | Pest-detection dogs | Island-wide |
| Annually | Sites of likeliest arrival for invasive ants | Home Bay |
| Sooner | In the event of a new organism arriving or threats from elevated pest densities on the adjacent mainland |  |

### 2.1 Standards for animal pest surveillance

Surveillance routines on the island will be tailored to checking frequencies, hardware deployments and pests targeted.

Island rangers and supporting staff will be supplied in the field with clear operational standards for each of the routines ([ANNEX 17](#_ANNEX_17_)).

## 3 First responses to incursions

Reactions to known or suspected incursions will take priority over all other work. Island rangers and supporting staff on the mainland will respond without delay.

### 3.1 Reaction rules and aims

Regardless of pest taxon, all first reactions to suspected or confirmed incursions will be governed by generic rules of response ([Annex 18](#_ANNEX_18_)) designed to ensure that

* island rangers are very well supported with advice and resources from the mainland
* responses are well managed and efficient
* eradication is swift

The primary objectives of responses will be to

* confirm the incursion
* determine correctly which organism(s) have arrived
* determine number, sex(es) and extent of spread
* contain pest organisms until they can be eradicated
* shut down likely arrival pathways until assured of their safety
* prepare communication and support measures in anticipation of full-scale operations

### 3.2 Preparation for incursions

Island rangers will prepare for incursion contingencies by

* assembling [comprehensive sets of first-response tools](#_ANNEX_19_Incursion), tailored to the most likely pest arrivals, held on the island and refreshed at scheduled intervals (Annex 19)
* updating species-specific guidelines for the detection and elimination of pests (see 3.3. below)
* keeping a list of [key incursion documents](#_ANNEX_20_) (Annex 20) and [contact details for incursion experts](#_ANNEX_21_) (Annex 21)
* refreshing plans for emergency translocations of at-risk taxa
* anticipating response impacts on vulnerable and non-target species

### 3.3 Responses for specific taxa

First reactions to pests confirmed by type or taxon will follow prescriptions tailored to each:

|  |  |
| --- | --- |
| [Mice](#_ANNEX_22_) | Annex 22 |
| [Rats](#_ANNEX_23_) | Annex 23 |
| [Mustelids](#_ANNEX_24_) | Annex 24 |
| [Cats](#_ANNEX_25_) | Annex 25 |
| [Invasive ants](#_ANNEX_26_) | Annex 26 |
| [Invasive reptiles](#_ANNEX_27_) | Annex 27 |

Responses to other unwanted pest organisms (e.g. injurious bird species, weeds, plant pathogens, invasive invertebrates) will proceed on expert advice once island rangers have confirmed the type of organism and extent of spread.

### 3.4 Escalation to a CIMS-based response with TAG input

Contingencies of these sorts will be escalated to CIMS responses with TAG input as soon as it is apparent that

* immediate eradication is unlikely and the organism may establish
* [permission will be required for the extraordinary use of rodenticides](dme://DOCDM-2751605/)

### 3.5 Reporting of costs and lessons

Whether incursions are confirmed or unresolved, island rangers will have the primary to duty to ensure that

* all time and dollar costs of each incursion event are tracked and recorded accurately (using the [recommended reporting template](dme://DOCDM-1560956/) or other means of accounting for the same variables).
* all lessons learned from each event are recorded carefully on the [recommended debrief template](dme://DOCDM-2619461/), along with recommendations for improvements

## 4 Communication and outreach

Visitors to Te Pākeka Maud Island and interests closely connected with it are essential audiences for biosecurity messaging.

Communication strategies (media, messages) have been prepared in [Biosecurity Engagement Plan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2368193&dDocName=DOC-2535521) (DOC-2535521). This plan and the resources it has generated will continue to guide outreach by island rangers and community rangers.

The principal purpose of biosecurity outreach is to ensure that all visitors are receptive to the need for careful quarantine measures and are willingly compliant.

# PART THREE Operational annexes

[Annex 1 RISK PATHWAYS under watch for Te Pākeka Maud Island](#_ANNEX_1_RISK_1)

[Annex 2 ROUTINE visits - Standards for pre-departure quarantine](#_ANNEX_2__1)

[Annex 3 EXTRAORDINARY visits - Standards for pre-departure quarantine](#_ANNEX_3_EXTRAORDINARY_1)

[Annex 4 UNUSUAL items - Standards for pre-departure quarantine](#_ANNEX_4_UNUSUAL_1)

[Annex 5 DOC VESSELS - Standards for pre-departure quarantine](#_ANNEX_5_DOC)

[Annex 6 NON-DOC CRAFT - Standards for pre-departure quarantine](#_ANNEX_6_NON-DOC)

[Annex 7 HAVELOCK QUARANTINE STORE - Operational standards](#_ANNEX_7_Operational_2)

[Annex 8 HAVELOCK QUARANTINE STORE - Upgrades required](#_ANNEX_8_Upgrades_2)

[Annex 9 TE PAKEKA MAUD ISLAND - Standards for quarantine store](#_ANNEX_9__2)

[Annex 10 TE PAKEKA MAUD ISLAND - Standards for quarantine on arrival](#_ANNEX_10_ISLAND)

[Annex 11 REVERSE QUARANTINE - Standards for departing people and gear](#_ANNEX_11_REVERSE_1)

[Annex 12 UNAUTHORISED LANDINGS - Standards for response](#_ANNEX_12_UNAUTHORISED_1)

[Annex 13 AUTHORISED PRIVATE VESSELS - Standards for quarantine](#_ANNEX_13_AUTHORISED_1)

[Annex 14 GARDENING, COMPOSTING, DISPOSAL OF FOOD WASTE - Standards for quarantine](#_ANNEX_14_GARDENING,_2)

[Annex 15 SURVEILLANCE NETWORK - Standards for operation and maintenance](#_ANNEX_15_SURVEILLANCE_1)

[Annex 16 SURVEILLANCE METHODS - Operational prescriptions](#_ANNEX_16__1)

[Annex 17 SURVEILLANCE - What to check and when](#_ANNEX_17__1)

[Annex 18 INCURSION RESPONSES - Rules for all responses](#_ANNEX_18_DO_1)

[Annex 19 INCURSION RESPONSE KIT](#_ANNEX_19_Incursion_1)

[Annex 20 KEY DOCUMENTS for first responses](#_ANNEX_20__1)

[Annex 21 KEY CONTACTS for incursions](#_ANNEX_21__2)

[Annex 22 Got a MOUSE ashore? Do this](#_ANNEX_22__1)

[Annex 23 Got a RAT ashore? Do this](#_ANNEX_23__1)

[Annex 24 Got a FERRET, STOAT or WEASEL ashore? Do this](#_ANNEX_24__1)

[Annex 25 Got a CAT ashore? Do this](#_ANNEX_25__1)

[Annex 26 Got INVASIVE ANTS ashore? Do this](#_ANNEX_26__1)

[Annex 27 Got PLAGUE SKINKS OR OTHER INVASIVE REPTILES ashore? Do this](#_ANNEX_27__1)

[Annex 28 MAP ONE - TRACK NETWORKS on Te Pākeka Maud Island](#_ANNEX_28_MAP_3)

[Annex 29 MAP TWO - DOC 200 NETWORKS on Te Pākeka Maud Island](#_ANNEX_29_MAP_1)

[Annex 30 MAP THREE - CHEW-CARD and TRACKING TUNNEL on Te Pākeka Maud Island](#_ANNEX_30_MAP_6)

[Annex 31 MAP FOUR - SURVEILLANCE DEVICES in Home Bay](#_ANNEX_31_MAP)

[Annex 32 RECORD SHEET for SURVEILLANCE CHECKS](#_ANNEX_32_RECORD_1)

[Annex 33 RECORD SHEET for TRACKING TUNNEL CHECKS](#_ANNEX_33_RECORD_2)

[Annex 34 RECORD SHEET for INCURSION INTERVIEWS](#_ANNEX_34_RECORD_3)

[Annex 35 PEST INVASION FORM](#_ANNEX_35_)

[Annex 36 SUPPLIERS of tools and lures](#_ANNEX_36_SUPPLIERS_1)

### ANNEX 1 RISK PATHWAYS currently under watch for Te Pākeka Maud Island. Pathways are ranked highest to lowest in the table accordingly to risk probability. Pest organisms are ranked likewise within each pathway.

| **Pathway** | **Organism** | **Probability of**  **incursion** | **Consequences of establishment** | **Likely pest origin** | **Means of transfer** |
| --- | --- | --- | --- | --- | --- |
| **DOC vessels** | Rodents | Critical | Critical | Havelock or other ports of call | Supplies, gear, vessel compartments |
|  | Weeds | Critical | Moderate |  | Clothing, footwear, supplies, gear |
|  | Micro-organisms Pathogens | High | Critical |  | Monitoring and sampling equipment, field gear, footwear |
|  | Invertebrates | High | High |  | Supplies, gear, vessel compartments |
|  | Invasive reptiles |  |  |  |  |
|  | Stoats | Low | Critical |  |  |
|  | Hedgehogs | Low | High |  |  |
| **Autonomous travel** | Mustelids | Critical | Critical | Adjacent landmasses | Swimming |
|  | Weka | Critical | Moderate |  |  |
|  | Rodents | Moderate | Critical |  |  |
|  | Pukeko | Critical | Moderate |  | Flight |
|  | Starlings | High | Low |  |  |
|  | Rodents | Low | Critical |  | Rafting |
| **Autonomous travel** | Mustelids | Low | Critical | Adjacent landmasses | Rafting |
| Possums |  |  |
| **Barge** | Rodents | Critical | Critical | Havelock or other ports of call | Building materials, machinery or other large freight |
|  | Weeds | Critical | Moderate |  |  |
|  | Micro-organisms Pathogens | High | Critical |  |  |
|  | Invertebrates | High | High |  |  |
|  | Invasive reptiles |  |  |  |  |
|  | Hedgehog | Low | High |  |  |
|  | Mustelids |  |  |  |  |
| **Water taxi**  **Mail boat** | Weeds | Critical | Moderate | Havelock or other ports of call | Clothing, footwear, supplies, gear or freight |
|  | Micro-organisms Pathogens | High | Critical |  | Monitoring, surveying and sampling equipment, field gear, footwear |
|  | Rodents |  |  |  | Supplies, gear, freight, vessel compartments |
|  | Invertebrates | High | High |  | Llarge items, vessel compartments |
|  | Invasive reptiles |  |  |  | Supplies, gear, freight, vessel compartments |
| Mustelids | Low | Critical |  |
|  | Hedgehog | Low | High |  | Large freight items |
| **Private vessels** | Invertebrates | High | High | Ports of origin or transit  Unauthorised landing | Gear, vessel compartments |
|  | Invasive reptiles | High | High |  |  |
| Rodents | Moderate | Critical |  |
|  | Cat  Dog | Low | High |  | Vessel compartments |
| **Charter boats** | Invertebrates | High | High | Havelock or other port of call | Gear, vessel compartments |
|  | Invasive reptiles |  |  |  |  |
|  | Rodents | Moderate | Critical | Havelock or other port of call |  |
|  | Micro-organisms  Pathogens | Low | Critical | Origin of translocated species | Species translocation  Gear, equipment, compartments |
| **Helicopter** | Rodents | Moderate | Critical | Blenheim  Wellington | Supplies, gear, cargo, compartments |
|  | Micro-organisms  Pathogens | Low | Critical | Blenheim  Wellington  Translocation sites of origin | Species translocation  Machine skids, compartments |
|  | Invertebrates | Low | High | Blenheim  Wellington | Supplies, gear, cargo, compartments |
|  | Invasive reptiles | Low | High |  |  |

### ANNEX 2 ROUTINE VISITS—Standards for pre-departure inspections of people and freight

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All people and their clothing, footwear, supplies and equipment will receive a full quarantine check at the Havelock quarantine store prior to departing for Te Pākeka Maud Island on approved transport |  |
| **Pathways managed** | DOC vessels  Mail boat  Water taxis  Barge  Helicopters |  |
| **Requirements** | * Island rangers are informed of each trip no less than one week ahead of departure * All leaders of research and scientific parties will provide DOC Picton with a copy of their operative research permit * All non-DOC visitors will obtain a landing permit through DOC Picton ([picton@doc.govt.nz](mailto:picton@doc.govt.nz)) * All trip organisers will obtain DOC approval for their mode of transport * All trip organisers or contact people will receive [Biosecurity Information](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=1974641&dDocName=DOC-2226389) (DOC-2226389) and the video link to *Preparing for Quarantine* (<https://youtu.be/yXNOpfW7PPQ>) with approval for their trip and mode of transport * All trip organisers will notify the island rangers and mainland quarantine lead of the trip and schedule a quarantine check no less than [one week] of departing * Quarantine leads will register all trips in the [Sounds Work Plan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3175126&dDocName=DOCDM-1579308) (DOCDM-1579308) * Quarantine leads will introduce checks with the standard [Quarantine Intro Talk](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2371776&dDocName=DOC-2536278) (DOC-2536278) * All trip participants will present fully prepared for inspection with their [self-audit checklist](dme://doc-2226389/) (DOCDM-2226389) completed and signed | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Actions and measures** | * Facility and detection devices will be checked for pests prior to each inspection (with results recorded on relevant hard copy registers) * All people and their gear (footwear, clothing, food, supplies and equipment) will be checked before departing. Gear will be stored in the secure facility until loading for departure * No prohibited items (e.g. personal daypacks or bags, tents, gaiters, home-grown or unwashed produce) will be permitted to travel to the island * The designated quarantine officer will ensure that all food, supplies, equipment, personal clothing and footwear are checked competently for pests and sources of contamination * All field equipment and footwear will be disinfected with Trigene * All gear will be packed in a sealed plastic bucket, nesta stakka bin or dry bag previously approved and disinfected * All packaged items will be repacked (wherever possible without original packaging) in an approved quarantine container * Oversized items will be double-wrapped in heavy-duty translucent plastic with all open edges fully secured with adhesive tape * All quarantine containers will be kept securely shut (and fastened where necessary with a cable tie) until arrival in the quarantine room on Te Pākeka Maud Island * All gear and people will be transported in a clean, pest-free DOC vehicle direct from quarantine to the approved transport and loaded immediately * The designated quarantine officer will postpone or cancel a trip if observing or suspecting an unremedied breach of quarantine standards (see [SECTION 3 – First Response to Incursion](#_3__First_4) for the correct procedures) | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Resources** | Administration staff (one hour for permit)  Quarantine officer (one to two hours for inspections) |  |

### ANNEX 3 EXTRAORDINARY VISITS—Standards for pre-departure quarantine

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All people and their clothing, footwear, supplies and equipment will receive a full quarantine check at the Havelock quarantine store prior to departing for Te Pākeka Maud Island on approved transport |  |
| **Pathways managed** | Charter vessels  Mail boat  Water taxis  Helicopters |  |
| **Requirements** | * All trip organisers will obtain a landing permit through DOC Picton ([picton@doc.govt.nz](mailto:picton@doc.govt.nz)) * All trip organisers will obtain DOC approval for their mode of transport * All trip organisers will notify the island rangers and mainland quarantine lead of the trip and schedule a quarantine check no less than [one week] of departing * Quarantine leads will register all trips in the [Sounds Workplan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3175126&dDocName=DOCDM-1579308) (DOCDM-1579308) * Quarantine leads will introduce checks with the standard [Quarantine Intro Talk](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2371776&dDocName=DOC-2536278) (DOC-2536278) * All trip participants will present fully prepared for inspection with their [self-audit checklist](dme://doc-2226389/) (DOCDM-2226389) completed and signed * All visitors will remain on their vessel once embarked and travel directly to Te Pākeka Maud Island | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Actions and measures**  **Actions and measures** | * All trip organisers or contact people will receive [Biosecurity Information](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=1974641&dDocName=DOC-2226389) (DOC-2226389) and the video link to *Preparing for Quarantine* (<https://youtu.be/yXNOpfW7PPQ>) with approval for their trip and mode of transport * Before departure, all people and their gear (footwear, clothing, food, supplies and equipment) will be checked competently for pests and sources of contamination by a designated quarantine officer * Clean gear will be stored in the secure facility until loading for departure * No prohibited items (e.g. personal daypacks or bags, tents, gaiters, home-grown or unwashed produce) will be permitted to travel to the island. * All field equipment and footwear will be disinfected with Sterigene * All gear will be packed in a sealed plastic bucket, nesta stakka bin or dry bag previously approved and disinfected * All packaged items will be repacked (wherever possible without original packaging) in an approved quarantine container * Oversized items will be double-wrapped in heavy-duty translucent plastic with all open edges fully secured with adhesive tape * All quarantine containers will be kept securely shut (and fastened where necessary with a cable tie) until arrival in the quarantine room on Te Pākeka Maud Island * All gear and people will be transported in a clean, pest-free DOC vehicle direct from quarantine to the approved transport and loaded immediately * The designated quarantine officer will postpone or cancel a trip if observing or suspecting an unremedied breach of quarantine standards (see [Section 3 – Incursion (First Response)](#Section3Incursion) for the correct procedures) | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Resources** | Administration staff (one hour for permit)  Quarantine officer (one to two hours for inspections) |  |

### ANNEX 4 UNUSUAL ITEMS—Standards for pre-departure quarantine

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All unusual items of freight, machinery and equipment will receive a full quarantine check at the Havelock quarantine store prior to departing for Te Pākeka Maud Island on approved transport |  |
| **Pathways managed** | DOC vessels  Mail boat  Water taxi  Barge  Rangers’ private vessel  Helicopter |  |
| **Requirements** | * The island rangers, Biodiversity Supervisor (islands) and Senior Ranger Biodiversity will agree on an appropriate quarantine regime (one or a combination of glueboards, water-blasting, steam-cleaning, chiller, check by second person, other) * The Operations Manager will approve the negotiated process * All freight organisers will obtain DOC approval for their mode of transport * No less than [one week] of departing, all freight organisers will notify the island rangers and mainland quarantine lead of the trip and schedule a quarantine check * Quarantine leads will register all unusual freight trips in the [Sounds Workplan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3175126&dDocName=DOCDM-1579308) (DOCDM-1579308) * All methods used and lessons learned will be recorded in the quarantine manual as a guide for future reference | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Actions and measures**  **Actions and measures** | * Before departure, all gear (footwear, clothing, food, supplies and equipment) will be checked competently for pests and sources of contamination by a designated quarantine officer * Quarantine will be completed by the designated biosecurity officer before departure * Clean freight will be stored in the secure facility until loading for departure * All gear will be packed in an approved quarantine container (sealed plastic bucket, nesta stakka bin, dry bag or if oversized, double-wrapped in heavy-duty translucent plastic with all open edges fully secured with adhesive tape * All packaged items will be repacked (wherever possible without original packaging) in an approved quarantine container * All quarantine containers will be kept securely shut (and fastened where necessary with a cable tie) until arrival in the quarantine room on Te Pākeka Maud Island * All unusual freight will be transported in a clean, pest-free DOC vehicle direct from quarantine to the approved transport and loaded immediately * The designated quarantine officer will postpone or cancel a trip if observing or suspecting an unremedied breach of quarantine standards (see [SECTION 3 – First Response to Incursion](#_3__First_1) for the correct procedures) | Biodiversity Supervisor Islands (mainland quarantine lead) |
| **Resources** | Quarantine officer (one to two hours for inspections) |  |

### ANNEX 5 DOC VESSELS—Standards for pre-departure inspections

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All DOC vessels will receive a full quarantine check at the point of departure prior to leaving for Te Pākeka Maud Island |  |
| **Pathways managed** | DOC vessels:  *Waiata*  *Te Wheke*  *Kotare*  *Te Kakaho* |  |
| **Requirements** | * Island rangers will be informed of each vessel journey no less than five working days ahead of departure * The vessel used will be recorded (by trip) in the Sounds Work Plan [DOCDM-1579308](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=4096524&dDocName=DOCDM-1579308) * All non-DOC passengers will obtain a landing permit through DOC Picton ([picton@doc.govt.nz](mailto:picton@doc.govt.nz)) * All DOC vessels will travel directly to Te Pākeka Maud Island (no stops, tie-ups, pick-ups or landings en route) * Lead skippers will check vessels for sign of pests or contamination (1) prior to every departure, and (2) no less frequently than monthly at other times * DOC’s Vessel Operating Plan (VOP) will record vessel and device checks in its monthly checklist | Mainland quarantine lead (Biodiversity Supervisor Islands) |
| **Actions and measures**  **Actions and measures** | * All skippers will fit vessels with pest-control devices (bait stations, covered glueboards, traps, tracking tunnels), as deemed appropriate by the mainland biosecurity lead * Skippers will keep DOC vessels clean and tidy in transit and at moorings (clean, uncluttered decks, bilges and compartments, free at all times of dirt, weeds, seeds and rubbish) * All doors and sealable compartments will be kept closed when vessels are unattended at moorings * No vessel will depart without a comprehensive pre-departure quarantine inspection of all compartments, anchor wells and bilges for sign of pest organisms or contamination * No passengers or freight will be loaded until all pest-control devices have been checked and the vessel is confirmed clean * All passengers and gear will have been quarantined to specified standards prior to arriving at their vessel * All vessels will be fitted with biosecurity signage to reinforce quarantine messages * DOC will use pest-detection dogs to check vessels servicing the island when the dogs are visiting for scheduled island surveillance * Skippers will act immediately on any breaches of quarantine or suspected incursions * Skippers will delay or cancel trips in any case of doubt about quarantine breaches (follow the process at [SECTION 3—First Response to Incursion)](#_3__First) | Lead skippers  Vessel skippers |
| **Resources** | Lead skipper (20 minutes for scheduled monthly quarantine checks)  Skipper and/or designated quarantine officer (20 minutes for pre-departure check and post-trip clean-up) |  |

### ANNEX 6 NON-DOC CRAFT—Standards for pre-departure inspections

|  |  |  |
| --- | --- | --- |
| **Standard** | **Measures** | **Responsibility** |
| **Minimum standard** | All non-DOC vessels and aircraft approved by DOC to service Te Pākeka Maud Island will receive a full quarantine check at the point of departure prior to leaving |  |
| **Pathways managed** | Water taxi  Mail boat  Barge  Helicopter |  |
| **Approval for external operators** | * All non-DOC craft, and their corresponding hangar/marina berths must pass an initial biosecurity inspection by DOC staff, prior to formal approval for use as means of transport to the island * Audit and random checks of non-DOC craft will be undertaken by DOC to ensure ongoing compliance with biosecurity standards * Approval requires compliance with all relevant standards * Operators must be listed on DOC Picton’s register of approved operators ([DOC-2567854](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-2567854)) | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Requirements** | * Island rangers will be informed of each non-DOC journey no less than one week ahead of departure * All non-DOC skippers and pilots will keep their craft clean, clutter-free and fitted permanently with pest-control devices (bait stations, covered glueboards, traps, tracking tunnels), as deemed appropriate by DOC’s mainland biosecurity lead * Aircraft hangars and marina berths will be free of rodents, invertebrates or weeds through scheduled cleaning, trapping, baiting and surveillance * The trip leader will alert DOC Picton’s biosecurity lead to book DOC quarantine for people and supplies being transported * All people and freight will meet specified quarantine standards before loading * All non-DOC craft approved for journeys must travel directly to the island with no stops, pick-ups, tie-ups or landings elsewhere * Operators will delay or cancel departures in any case of doubt about quarantine breaches and will alert DOC Picton’s biosecurity lead accordingly (follow the process at [SECTION 3—First Response to Incursion)](#_3__First) | External operators, lead skippers and pilots  Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Actions and measures** | * Pest-control devices in craft and associated facilities will be activated no less than one week prior to travel to the island * Vessel and aircraft operators will complete quarantine checks of their craft before departure * No people or gear will be loaded until operators have checked craft and pest-control devices for signs of pest organisms or contamination * All organisms intercepted in non-DOC craft and their associated facilities will be recorded by the operator in an easily accessible hard-copy register of glueboard, trap and tunnel checks * Helicopter skids will be confirmed free of soil, seeds and animal pests * DOC will use pest-detection dogs to check non-DOC craft servicing the island when the dogs are visiting for scheduled island surveillance |  |
| **Resources** | DOC quarantine lead - 2 hours (for initial inspection of craft, facilities and detection devices) |  |

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### ANNEX 7 Operational standards for the Havelock quarantine store

| **Minimum Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Biosecurity lead** | * The one or two DOC staff designated biosecurity leads on the mainland will be the store minders * Minders will hold mandates to insist on proper use of the facility * Only minders will hold keys to the facility | Operations Manager Sounds |
| **Store is fit for purpose** | * Easy-clean surfaces throughout * No hiding places for pests in fittings, coverings or cavities * Secure doors externally and within * Excellent lighting throughout * Elevated work wenches in check rooms * Maintenance complies with an approved plan for care of the facility, fittings and surroundings | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Pest-proofing** | * Secure internally from rodents, invertebrates, weed seeds, pathogens and micro-organisms through scheduled cleaning, trapping, baiting, spraying, fumigation and visual inspection * Secure externally from Darwin ants through scheduled professional ant control * Sticky pads, traps, tracking tunnels and insecticide sprays are operating 24/7 and inspected prior to the use of the facility, AND by default a minimum of weekly. * All doors, windows and other openings are tight-fitting, with metal flanges to prevent entry by gnawing pests * No gaps greater than 5 mm between room surfaces * Gaps around doors are secured by excluder strips (brush or other materials) | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Use for quarantine only** | * The store is totally secured as a clean, pest-free space within its host building * Absolutely no storage of unrelated or non-quarantined goods | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Freight flows** | * Gear and freight management progresses strictly from cleaning of dirty and incoming gear (outside) to inspection in the check room to storage until reuse in the clean -gear room (the inner sanctum) * Inner sanctum is secure and easily inspected from the outside | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Record-keeping** | * All organisms intercepted in the store are recorded in easily accessible hard-copy registers for rodent glueboards, traps and tunnel checks * Mandatory daily checking of any activated rodent glueboards complies with DOC’s [Code of Practice for Rodent Glueboard Uses](dme://doc-1488105/) and uses the [approved daily record form](dme://doc-2694052/) * Interceptions in external pest control devices are recorded in a separate hard-copy register for them too | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Signage** | * The store is very clearly labelled externally as a QUARANTINE facility * Operating instructions on posters or signs are simple, clear and instructive | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Quarantine containers are fit for purpose** | * Purpose-built, easily cleaned back-packs and dry-bags of various sizes substitute for personal bags * Use of sealable 20 L buckets, colour-coded by island to minimise cross-contamination * Nesta Stakka bins have secure lids fastened down tightly with cable ties and refrigeration tape | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Transport vehicles and trailers are clean and pest-free** | * A vehicle is designated where possible for transporting people and cargo from quarantine to island transport, preferably with a covered deck (canopy) * Any vehicles, trailers and associated equipment are cleaned and made pest free prior to use | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Dog checks** | * Facility and surroundings are checked by predator detection dog(s) during every scheduled island surveillance check | Mainland biosecurity lead Biodiversity Supervisor (Islands) |
| **Quarantine staff are trained and competent** | * Induction, training and apprenticeship for new quarantine minders * Assessment of competence prior to assuming quarantine tasks and duties * Annual refresher training for competent minders | Mainland biosecurity lead Biodiversity Supervisor (Islands) |

### ANNEX 8 Upgrades required to meet standards for the Havelock store

|  |  |  |  |
| --- | --- | --- | --- |
| **Standard** | **Upgrade required** | **Responsibility** | **Timeframe** |
| Detection devices | Hang a key for the glueboard trap cover on wall as a permanent fixture | Mainland biosecurity lead Biodiversity Supervisor (Islands) |  |
|  | Install tracking tunnels in the facility and keep them set permanently |  |  |
|  | Provide hard copy register for device checks |  |  |
| How-to manual | The quarantine store requires a manual to explain how to   * check for items (including prohibited items) * maintain the store * clean quarantine containers * store surveillance devices and checking regime * report on managing and learning from unusual items * respond to a pest incursion in the facility * keep track of and replenish essential quarantine equipment | Mainland biosecurity lead Biodiversity Supervisor (Islands) |  |
| Quarantine containers | Replace Nesta Stakka bins with one or several watertight, fully sealable alternatives.  All new containers receive BIOSECURITY branding | National Biosecurity Advisors | Ongoing |
| Incoming gear room and wash-down facilities | Investigate options for a secure incoming goods store to replace the outside lock-up.  Combine if possible with a wash-down and drying facility for equipment and containers returning to the store | Mainland biosecurity lead Biodiversity Supervisor (Islands) |  |
| Security | Restrict store keys to designated quarantine staff only | Mainland biosecurity lead Biodiversity Supervisor (Islands) |  |

### ANNEX 9 Mandatory standards for Te Pākeka Maud Island Quarantine Room

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Quarantine room is fit for purpose** | * Interior surfaces, coverings and fittings minimise hiding places for pests * Room and working surfaces are well lit and easy to clean * Work benches are elevated off the floor * All cleaning equipment is serviced and emptied after each inspection * Detection and trapping devices (glueboards, traps, kick-boards, tracking tunnels) will be set at all times * All doors, windows and other openings will be tight-fitting with no gaps > 5 mm between surfaces | Ranger Te Pākeka Maud Island |
| 1. **Quarantine only** | * The room is completely secured as a clean, pest-free space within its host building * Absolutely no storage of unrelated or non-quarantined goods | Ranger Te Pākeka Maud Island |
| 1. **Maintenance** | * Checking of detection devices and traps will comply with [Table 3 — Surveillance frequencies](#_2.1_Checking_frequency) and [Surveillance Check Guides](#_ANNEX_17_) (Annex 17) * Regular cleaning, trapping and surveillance will be scheduled | Ranger Te Pākeka Maud Island |
| 1. **Record-keeping** | * All organisms intercepted in the room will be recorded in easily accessible hard-copy registers for rodent glueboards, traps and tunnel checks * Mandatory daily checking of any activated rodent glueboards complies with DOC’s [Code of Practice for Rodent Glueboard Uses](dme://doc-1488105/) and uses the [approved daily record form](dme://doc-2694052/) * Interceptions in pest-control devices outside the room are recorded in a separate hard-copy register for them too | Ranger Te Pākeka Maud Island |
| 1. **Signage** | * The room is very clearly labelled externally as a QUARANTINE facility * Operating instructions on posters or signs are simple, clear and instructive | Ranger Te Pākeka Maud Island |

### ANNEX 10 ISLAND QUARANTINE CHECKS—Standards for quarantine on arrival

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All DOC and non-DOC visitors, their clothing, footwear, supplies and equipment will receive a full quarantine check immediately at arrival on Te Pākeka Maud Island |  |
| **Pathways managed** | DOC vessels  Water taxi  Mail boat  Barge  Helicopter  Charter boat |  |
| **Requirements** | * Island rangers will be informed of each visit no less than [one week] ahead of departure * All vessels used will be registered (by trip) in the [Sounds Work Plan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3175126&dDocName=DOCDM-1579308) * All vessels, visitors and freight will have been subjected to comprehensive point-of-departure quarantine checks * Only non-DOC visitors with a landing permit will be permitted ashore * No arrivals will be permitted ashore unless met by Island rangers at the jetty or helipad | Mainland quarantine lead (Biodiversity Supervisor Islands)  Island rangers |
| **Actions and measures**  **Actions and measures** | * Skippers and pilots will abort approaches to the island if detecting or suspecting a breach of quarantine in-transit * All visitors will tread through the Sterigene foot-bath at the jetty or helipad * All visitors and freight will be transported directly to the quarantine room in Comalco Lodge * No bags or freight will be opened until in the quarantine room * Doors and windows in the quarantine room will remain closed and sealed until each inspection cycle is finished * **EXTRAORDINARY VISITORS** will not have personal bags ashore (other than camera bags and bottled water) and will have clothing and footwear inspected by island rangers on the jetty or helipad * **FREIGHT ITEMS TOO LARGE** to fit in the quarantine roomwill be inspected by island rangers before unloading from vessels and helicopters * Quarantine container surfaces will be checked carefully for in-transit stowaways and contamination * The contents will be removed from all containers and inspected * All clothing and footwear will be inspected for stowaways and contamination * All inspected gear will be kept separate from gear waiting to be inspected * **VESSELS AND AIRCRAFT** remaining moored or landed will keep all on-board kill and detection devices set following disembarkation of passengers and freight * **REVERSE QUARANTINE** will apply to all freight and personal gear leaving the island. Inspections will look for stowaway wildlife (geckos, weta etc) , plant material and soil contamination * **REVERSE QUARANTINE** will require all departing visitors to tread through Sterigene foot baths immediately before boarding vessels or aircraft * Any known or suspected breaches of quarantine will be reported immediately to the island rangers (and later, to their managers), following the process at [SECTION 3—First Response to Incursions](#_3__First_2) | Vessel skippers  Pilots  Island rangers |
| **Resources** | Island rangers (one hour) |  |

### ANNEX 11 REVERSE QUARANTINE—Standards for quarantine for departing visitors and gear

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | All DOC and non-DOC visitors, their gear, and freight leaving Te Pākeka Maud Island will depart in a clean uncontaminated condition |  |
| **Pathways managed** | DOC vessels  Water taxi  Mail boat  Barge  Helicopter  Charter boat |  |
| **Requirements** | * Island rangers will be ensure that all outgoing gear, freight and people are subjected to close quarantine checks for stowaway wildlife (geckos, wetas, other invertebrates), plant material (especially Veldt grass) and soil contamination | Island rangers |
| **Actions and measures** | * All freight and personal gear leaving the island will be cleaned carefully before permitted to depart * Checks will be timed wherever possible to occur immediately before departure * All departing visitors will tread through Sterigene foot baths immediately before boarding vessels or aircraft * Any known or suspected breaches of quarantine will be reported immediately to the island rangers (and later, to their managers), following the process at [SECTION 3—First Response to Incursions](#_3__First_3) | Island rangers |
| **Resources** | Island rangers (one hour) |  |

### ANNEX 12 UNAUTHORISED LANDINGS—Standards for responses

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standards** | All possible unauthorised landings will be intercepted and turned away to minimise the risk of pest incursions |  |
| **Pathways managed** | Private free-roaming vessels of all kinds |  |
| **Requirements** | * Island rangers will act on all unauthorised landings, whether detected directly or reported by others * All possible information will be gathered about the vessels, occupants and biosecurity threats to the island * Whether intercepted or not, all unauthorised landings will be reported to the Biodiversity Supervisor, Islands * For their own safety, island rangers will avoid aggressive confrontations | Island rangers |
| **Actions and measures** | * All unauthorised vessels and their occupants will be approached and photographed * Intercepting rangers will have secure communication with each other, remain wary of aggressive behaviour and remove themselves from confrontational situations * Rangers will note the vessel’s name, registration (if any), size, type, colour, distinguishing features, movements and origins * Rangers will record information about the vessel’s owners and occupants (number, names, addresses, descriptions, ethnicity) and any accompanying pets or animals * Rangers will attempt to determine the reasons for landing * A report or file note will be submitted to the Biodiversity Supervisor, Islands for every incident * Where feasible, vessel owners will receive a follow-up letter reinforcing the messages given at the time of interception * Any known or suspected breaches of quarantine will be reported immediately to the Biodiversity Supervisor, Islands following the process at [SECTION 3—First Response to Incursions](#_3__First) | Island rangers |
| **Resources** | Island rangers (one to two hours per incident)  Supervisor or Senior Ranger (one hour for follow-up letter) |  |

### ANNEX 13 AUTHORISED PRIVATE VESSELS—Standards for quarantine

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | Any authorised private vessel moored near or landed on Te Pākeka Maud Island will comply with the quarantine standards applying for all other vessels |  |
| **Pathways managed** | Private vessels belonging to DOC staff (yachts, kayaks) |  |
| **Requirements** | * All private vessels in use by island rangers on or near the island must be authorised by Operations Manager Sounds * Use of the vessel, and associated contingency measures, will be approved by Operations Manager Sounds only after consideration of all biosecurity implications | Island rangers |
| **Actions and measures** | * All authorised private vessels will have been cleared through point-of-departure quarantine for [Unusual Items](#_ANNEX_4_UNUSUAL) (Annex 4) before transit to the island * Authorised private vessels will be kept clean and tidy at all times * When in use, private vessels and their occupants may not land anywhere elsewhere than Te Pākeka Maud Island * In the event of an emergency or other contingency in which a landing is necessary at another location, the vessels must first travel to Havelock for full quarantine before returning to Te Pākeka Maud Island * Renewed quarantine of vessels and occupants will comply with standards for Unusual Items and DOC visits respectively. * Any known or suspected breaches of quarantine will be reported immediately to the Biodiversity Supervisor, Islands following the process at [SECTION 3—First Response to Incursions](#_3__First) | Island rangers |
| **Resources** | Nil – quarantine requirements will be met in personal time |  |

### ANNEX 14 GARDENING, COMPOSTING AND DISPOSAL OF HAZARDOUS FOOD WASTE—Standards for quarantine

| **Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Minimum standard** | Food production and disposal on the island will be controlled carefully to minimise the likelihood of introducing new pest organisms and pathogens |  |
| **Pathways managed** | Domestic food production on the island |  |
| **Requirements** | * All gardening practices will be strictly controlled so as to avoid spreading invasive plants and pathogens * Composting will not be used to dispose of food waste capable of spreading weeds and pathogens or sustaining mammalian pests * Hazardous food waste will be disposed of carefully according to type | Island rangers |
| **Actions and measures** | * Vegetable plants will be contained strictly within garden plots * No vegetable or other edible plants will be grown on the island if they are capable of invasive spread * All garden plants will be imported as and grown from seed * No commercial compost or potting mixes will be imported, no matter how secure the suppliers’ biosecurity guarantees * Composting is encouraged for local disposal of safe food waste * Composting boxes will be included in regular surveillance checks for rodents and other vertebrate pest organisms * Compost will be turned no less frequently than six-monthly to dissuade rodents and other vertebrate pests * Eggs, eggshells and large seeds will be burned or disposed of in hard rubbish removals from the island * Meat scraps must be disposed of in hard-rubbish collections or into the sea below mean high water * In case of doubt on any gardening or disposal matter, rangers will take advice from Supervisors or Senior Rangers * Any known or suspected breaches of quarantine will be reported immediately to the Biodiversity Supervisor, Islands following the process at [SECTION 3—First Response to Incursions](#_3__First) | Island rangers |
| **Resources** | Island rangers |  |

### ANNEX 15 SURVEILLANCE NETWORK—Standards for network operation and maintenance

| **Minimum Standard** | **Measures** | **Responsibility** |
| --- | --- | --- |
| **Devices are well positioned, accurately mapped and well labelled** | * All devices are fixed in place in optimal or appropriately levelled positions * Entrances to tunnels, boxes and covers will be cleared manually at each check * Each device will be individually labelled and site-marked by GPS and orange triangle track marker (see [Sounds Protocol for Marking Biodiversity Lines](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2879064&dDocName=DOC-2680620), DOC-2680620) | Island rangers |
| **All devices are checked on scheduled days** | * Devices will be checked on the scheduled day * Scheduled checks will be completed on the day (not extended over several days) | Island rangers |
| **Checking data are recorded accurately and securely** | * All checking data will be recorded on hard copy registers by type of device * Data for **DOC 200 traps, mouse traps, glueboards, chew-cards, wax-tags and bait stations** will be recorded in the field on [DOC-2832790](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (see [Annex 32](#_ANNEX_32_RECORD) for the template) * **Tracking tunnel** data will be recorded in the field on [DOC-2832792](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (see [Annex 33](#_ANNEX_33_RECORD) for the template) * Device positions will be recorded on the island’s GPS unit, on .gpx file on local mapping software (Maptoaster, ArcView) and backed-up to the Maud Island hard-drive and the Sounds [S Drive](file://sndaosvr1/groups$/GIS/Biodiversity/115_Island_Management_and_Restoration/Maud%20Island) * All checking, lure and maintenance data will be transferred from field notebooks into the GIS Trapping application at least monthly. | Island rangers |
| **High quality maintenance of devices, baits and lures** | * Every device will be maintained in excellent working order * Old, malfunctioning or doubtful devices will be replaced without delay * Lures will be refreshed and alternated at each check * Old lures will be disposed of in the rubbish or into the sea below MHWS mark (notdiscarded elsewhere on the island) | Island rangers |
| **Perishable supplies will be kept fresh and well stocks** | * Stocks of lures, baits and perishable detection devices on hand will be sufficient for several months * Baits will be held securely in the island’s surveillance store * Lures, chew cards, wax tags and tracking cards will be stored in the surveillance store’s fridge or freezer, or in pest-proof containers in a cool, dry area of the store | Island rangers |
| **All lures, toxins and their uses will be approved** | * Alternatives to approved lures will be used only if sanctioned by the [Island Eradication Advisory Group](http://intranet/our-work/biodiversity-and-natural-heritage/threats-to-biodiversity/animal-pests/animal-pest-eradications/island-eradication-advisory-group/) (IEAG), other recognised experts or by best practice prescriptions * Toxin use in bait stations will comply with current best practice for island biosecurity ([DOCDM-20171](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-20171)) and with uses approved in the operative Status List ([DOCDM-22655](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2549187&dDocName=DOCDM-22655)) * Approvals will be acquired for practices relevant to other interests such as tangata whenua and neighbours | Island rangers |
| **Responsiveness to new threats** | * Checking will intensify in frequency in response to threats from novel pest organisms or mainland pest irruptions (e.g. mast events, incursion at mainland quarantine). * Surveillance will remain attentive to pest-monitoring data for adjacent Mt Stanley/Tennyson Inlet (recorded at [DOC-2303909](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2057355&dDocName=DOC-2303909)) | Island rangers |
| **Regular critical assessment of surveillance practices** | * Surveillance prescriptions in this plan will be reviewed no later than July each year or updated sooner to reflect changes to the network and practices * Surveillance practices and tools will be subject to peer-mediated audit every three to four years, or sooner if deemed necessary * Expert advice will be taken from the [IEAG](http://intranet/our-work/biodiversity-and-natural-heritage/threats-to-biodiversity/animal-pests/animal-pest-eradications/island-eradication-advisory-group/) (Island Eradication Advisory Group), the Island Biosecurity email network (L\Island Biosecurity), and Animal Pests email network (L\Animal Pests) * Island rangers will comply with the [SOP for Animal Pest Field Trials](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403289&dDocName=OLDDM-135400) in reporting the results of experimentation on the island. Results will also be reported to the island biosecurity community via networks and the [**L\Island biosecurity**](mailto:L%5CIsland%20Biosecurity%20%3CIslandBiosecurity@doc.govt.nz%3E) contact list | Island rangers |

### ANNEX 16 OPERATIONAL PRESCRIPTIONS FOR SURVEILLANCE METHODS on Te Pākeka Maud Island

| **Device** | **Location** | **Target Pests** | **Check** | **Total** | **Cover design** | **Spacing** | **Lures** | **Supporting information** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **DOC 200**  **Stainless steel** | Wharf Home Bay  [Map 4](#_ANNEX_30_MAP_4) | Mustelid  Rat | Weekly | 6 | Wooden single set  Single entry  Internal baffle  Entrances ≥ 70mm (4 squares wide) | High risk sites | Rat—peanut butter  Stoat—hen egg or Erayz (rabbit meat) | DOC 200 trap and trap-box design: [DOCDM-29855](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=714247&dDocName=DOCDM-29855)  [Best Practice for baffle use](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-2607040) (DOC-2607040)  Supplier info: [Annex 36](#_ANNEX_36_SUPPLIERS) |
| **DOC 200**  **Stainless steel** | All tracks  [Map 2](#_ANNEX_29_MAP) | Mustelid  Rat | Monthly | 52 | Wooden single set  Single entry  Internal baffle  Entrances ≥ 70mm (4 squares wide) | 300 m | Rat—peanut butter  Stoat—hen egg, Erayz (rabbit meat) |  |
| **DOC 200**  **Stainless steel** | Coastline  [Map 2](#_ANNEX_29_MAP) | Mustelid  Rat | Monthly | 26 | Wooden single set  Single entry  Internal baffle  Entrances ≥ 70mm (4 squares wide) | High risk sites such as landings or flotsam) | Rat—peanut butter  Stoat—hen egg or Erayz (rabbit meat) |  |
| **Snap-E trap Plastic** | Coastline  [Map 2](#_ANNEX_29_MAP) | Mouse | Monthly | 26 | Wooden (ply) box  Single entry (mesh) | High risk sites on land and coastline (e.g. landings and flotsam) | Ferafeed 213/216 Peanut butter  White chocolate button | Trap box design: [DOC-2869010](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-2869010) |
| **Snap-E trap (plastic)** | Buildings (12), Home Bay (6), Vessel *Te Kakaho* (2)\* [Map 4](#_ANNEX_30_MAP_4) | Mouse | Weekly | 20 | Wooden (ply) box  Single entry (mesh) | High risk sites on land and coastline (e.g. landings and flotsam) | Ferafeed 213/216 Peanut butter  White chocolate button | \* Devices on boats must be checked pre- and post-trip also, to standards at [DOC-2590643](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2512946&dDocName=DOC-2590643) (hard copy held on *Te Kakaho*) |
| **Tracking tunnel** | Home Bay  All tracks  [Map 3](#_ANNEX_30_MAP) | Mouse  Rat  Mustelid  Plague skink | Every even-numbered month \* | 155 | Wooden tunnels (supplemented with ‘Black Trakka’ cards) | 100m | Rodents—Ferafeed 213/219, peanut butter, white chocolate button  Stoats—Erayz paste/block | \* Run for 3 nights in Oct, Dec, Feb, Apr  \* Run for 5 nights in Jun, Aug  [Tracking tunnel design](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-2590440) (DOC-2590440).  Run as tracking tunnel without baffles fitted. In an incursion, convert the tunnel to hold mouse trap or DOC 150 box using a baffle (see [Best Practice for baffle use](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOC-2607040), DOC-2607040) |
| **Chew-card** | Home Bay (11)  [Map 4](#_ANNEX_30_MAP_4) | Rat  Mouse  Possum | Weekly | 162 | No cover. Attach to marked wooden stakes, within 5cm of ground | High-risk areas | Ferafeed 213 or peanut butter | See photos in Annex  Label card with ID as it is deployed.  Attach by staple gun to labelled pegs, within 5cm of the ground, with the channels horizontal. (i.e. lured edge vertical) |
| **Chew-card** | All tracks (151)  [Map](#_ANNEX_30_MAP_5) 3 | Rat  Mouse  Possum | Monthly | 162 | No cover. Attach to marked wooden stakes, within 5cm of ground | 100 m | Ferafeed 213 or peanut butter | See photos in Annex  Label card with ID as it is deployed. Attach by staple gun to labelled pegs, within 5cm of the ground, with the channels horizontal. (i.e. lured edge vertical) |
| **Ant plot** | Wharf area  Lower House Comalco Lodge  [Map 4](#_ANNEX_30_MAP_4) | Invasive ants  Invertebrates | Once a year Jan–Mar | 3 | No cover.  Lure is presented in plastic pottles | 3m x 3m grid at high-risk areas | Xstinguish non-toxic ant bait | Run for 3 hours  Instructions: [Argentine Ant Protocol](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-532450) (DOCDM-532450)  Previous monitoring report (for plot setup and location only) [DOC-2590641](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2512933&dDocName=DOC-2590641) |
| **Glueboard trap**  **(non-rodent)** | Vessel *Te Kakaho* (2) \*  Island quarantine room (2)  [Map 4](#_ANNEX_30_MAP_4) | Invasive ants  Invertebrates | Check pre-and post- trip/visit | 4 | Plastic ‘Protecta’ trap cover rotated to prevent access by small mammals | High-risk areas | None | [Glueboard Code of Practice](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=1742832&dDocName=DOCDM-1528063) (DOCDM-1528063)  \* Devices on boats must be checked pre- and post-trip also, to standards at [DOC-2590643](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2512946&dDocName=DOC-2590643) (hard copy held on *Te Kakaho*) |
| **Toxic bait station** | Vessel *Te Kakaho* (2)  Inside buildings (4)  [Map 4](#_ANNEX_30_MAP_4) | Rat  Mouse | Weekly \* | 6 | Wooden or plastic bait station (‘Protecta’ or similar wooden design) | High-risk areas  Indoors | Pestoff Rodent Block or Pestoff Rodent 20R pellet bait (0.02g/kg brodifacoum) | Safe handling guidelines at [DOCDM-22715](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-22715)  Use must be consistent with the current Status List ([DOCDM-22655](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2549187&dDocName=DOCDM-22655)) and Island Biosecurity Best Practice [DOCDM-20171](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=501668&dDocName=DOCDM-20171)  Bait stations must shelter baits from the elements  \* Devices on boats must be checked pre- and post-trip also, to standards at: [DOC-2590643](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2512946&dDocName=DOC-2590643) (hard copy held on *Te Kakaho*) |
| **Pest-detection dog** | Island-wide | Mustelid | Jan/Feb | 1 x 3 days | N/A | High-risk areas, tracks, landing points | N/A | [Predator dog request template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-342112) DOCDM-342112) submitted by 1 April each year  Include a request for the outer Pelorus Islands, Havelock quarantine store, vessels, barges, helicopters  [Pest detection dog work plan](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3038822&dDocName=DOCDM-475859) (DOCDM-475859)  [Dog handler contact list](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3033607&dDocName=DOCDM-1292127) (DOCDM-1292127)  Handlers to provide report, track log and .gpx files on completion of dog inspections |
| **Pest-detection dog** | Island-wide | Rat  Mouse | Oct/Nov | 2 x 3 days | N/A | High-risk areas, tracks, landing points | N/A |  |
| **Havahart live-capture cage trap** | Sighting-dependent island-wide | Weka  Pukeko | Daily within 12 hours of sunrise | 6 | N/A | At sighting localities | Hen egg  Erayz (rabbit meat) | Animals must be dispatched humanely (both species) or released (weka only) far enough from the island to prevent reinvasion (e.g. Pipi Beach or Putanui Point) |
| **Observation and vigilance** | Island-wide | Pest animals | At all times |  | N/A | N/A | N/A | Look for rodents nesting in compost heaps, flora/fauna sign (damage), fauna changes, pest animal sign, reports from staff and visitors |
| **Observation and vigilance** | Island-wide | Weeds | At all times  Biannually \* |  | N/A | N/A | N/A | \* Schedule weed-control trips in October and March each year  Consult historical weeds data  [DOCDM-585080](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-585080) and [OLDDM-586609](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=OLDDM-586609)  Record all weed actions via Citrixat DOCGis Weeds <http://intmaps/richmapviewer> |

### ANNEX 17 SURVEILLANCE—What to check and when

#### 1 WEEKLY CHECKS

|  |  |  |
| --- | --- | --- |
| **Purpose** | Confirm that all high-risk areas are pest-free | |
| **Check areas** | Home Bay buildings and residences Wharf and landing area  [Map 4](#_ANNEX_30_MAP_4) |  |
| **Timing** | Once every week (Tuesday)  Complete all checks on the same day | |
| **Resources** | Island staff (1 person x 30 minutes) | |
| **Devices** | **Location** | **Numbers** |
| DOC 200  Snap-E trap  Chew-card  Bait Station  Glueboard | Wharf, Home Bay  Wharf, Home Bay, Buildings, Boat  Home Bay  Buildings, Boat  Quarantine room, Boat | 6  20  11  6  4 |
| **Equipment List** | Notebook & pencil  Laminated [Track Map 1](#_ANNEX_28_MAP_1)  Disposable gloves  Bait (bait stations)  Spare chew-cards  Spare glueboards  8mm spanner  [DNA sample kit](http://www.ecogene.co.nz/sample_protocol.asp) | GPS (tracks & waypoints loaded) Camera  Stapler gun & staples  Lures (traps)  Tag pen  Keys for bait station/glueboard Square-drive screwdriver |
| **Actions** | * Record everything done and seen * Inspect all devices for evidence of pest animals * Clear device entrances of vegetation and debris * Reset triggered traps * Replace missing or degraded traps, lures and baits * Replace damaged or gnawed chew-cards * Replace heavily populated glueboards * Secure all gnawed baits, chew-cards, pest sign, trapped animals (in any device) for further investigation * Transfer check data to hard-copy register in office [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790) or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2), and update trapping effort database [DOC-2444666](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403293&dDocName=DOC-2444666) and calculations at [DOC-2423421](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403289&dDocName=DOC-2423421) * Act immediately on any evidence of pests, suspected or verifiable, and report it to your supervisor. Follow the process at [SECTION 3 – First Response to Incursion](#_3__First) | |
| **Notes** | These checks are easily achieved as part of the island ranger’s weekly routine. | |

#### 2 MONTHLY CHECKS OF THE ISLAND INTERIOR

|  |  |  |
| --- | --- | --- |
| **Purpose** | Confirm that all tracks and high-risk areas are pest-free | |
| **Check areas** | All island tracks, buildings, quarantine room, wharf, boat, Home Bay  Refer to [Map 2](#_ANNEX_29_MAP), [Map 3](#_ANNEX_30_MAP_2), [[Map 4](#_ANNEX_30_MAP_4)](#Map4) | |
| **Timing** | First week of every calendar month  Complete all checks on the same day | |
| **Resource** | 2 persons x 8 hours (for field checks)  1 person x 1 hour (for check of tracking cards, glueboards, and data entry) | |
| **Device** | **Location** | **Numbers** |
| DOC 200  Snap-E trap  Chew-card  Bait station  Glueboard | Wharf, Home Bay, all tracks  Wharf, Home Bay, Buildings, Boat  Home Bay, All tracks  Buildings, Boat  Quarantine room, Boat | 60  20  162  6  4 |
| **Equipment List** | Notebook & pencil  Laminated [Track Map 1](#_ANNEX_28_MAP_1)  Disposable gloves  Bait (bait stations)  Spare chew-cards  Spare glueboards  8mm spanner  Square-drive screwdriver | GPS (tracks & waypoints loaded) Laminated [Map 2](#_ANNEX_29_MAP)  Staple gun & staples  Lures (traps)  Tag pen  Keys for bait station/glueboard Camera  [DNA sample kit](http://www.ecogene.co.nz/sample_protocol.asp) |
| **Actions** | * Record everything done and seen * Inspect all devices for evidence of pest animals * Clear device entrances of vegetation and debris * Reset triggered traps * Replace missing or degraded traps, lures and baits * Replace damaged or gnawed chew-cards * Replace heavily populated glueboards * Secure all gnawed baits, chew-cards, pest sign, trapped animals (in any device) for further investigation * Transfer check data to hard-copy register in office [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790) or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2), and update trapping effort database [DOC-2444666](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403293&dDocName=DOC-2444666) and calculations at [DOC-2423421](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403289&dDocName=DOC-2423421) * Act immediately on any evidence of pests, suspected or verifiable, and report it to your supervisor. Follow the process at [SECTION 3 – First Response to Incursion](#_3__First) | |
| **Recommended routes** | **1** Ring Road, Peninsula, Zig-zag, Jills, Te Pākeka, Paddocks  **2** Fuchsia, North Summit, South Summit, Southwood, Boat Bay, Fort Ridge, Fort Road, Home Bay, Buildings, Quarantine, Wharf, Boat | |

#### 3 MONTHLY COASTAL CHECKS

|  |  |  |
| --- | --- | --- |
| **Purpose** | Confirm that high-risk coastal landings & coastal debris are pest-free | |
| **Check Areas** | Island’s coastline  Refer to [Map 2](#Map2) | |
| **Timing** | First week of every calendar month  Complete all checks in the same day | |
| **Resources** | 2 persons x 4 hours  Vessel *Te Kakaho* | |
| **Device** | **Location** | **Numbers** |
| DOC 200  Snap-E trap | Island coastline  Island coastline | 26  26 |
| **Equipment List** | Notebook & pencil  Laminated [Track Map 1](#_ANNEX_28_MAP_1)  Disposable gloves  Square-drive screwdriver  Camera | Chartplotter & GPS + waypoints  Tag pen  Lures (traps)  8mm spanner  [DNA sample kit](http://www.ecogene.co.nz/sample_protocol.asp) |
| **Actions** | * Record everything done and seen * Inspect all devices for evidence of pest animals * Clear device entrances of vegetation and debris * Reset triggered traps * Replace missing or degraded traps, lures and baits * Replace damaged or gnawed chew-cards * Replace heavily populated glueboards * Secure all gnawed baits, chew-cards, pest sign, trapped animals (in any device) for further investigation * Transfer check data to hard-copy register in office [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790) or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2), and update trapping effort database [DOC-2444666](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403293&dDocName=DOC-2444666) and calculations at [DOC-2423421](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403289&dDocName=DOC-2423421) * Act immediately on any evidence of pests, suspected or verifiable, and report it to your supervisor. Follow the process at [SECTION 3 – First Response to Incursion](#_3__First) | |
| **Notes** | Wait for calm, settled sea conditions for landings on coastline  Aim to complete checks during the incoming tidal cycle  One person skippers the boat; the other checks devices ashore | |

#### 4 TWO-MONTHLY CHECKS OF TRACKING TUNNELS

|  |  |  |
| --- | --- | --- |
| **Purpose** | Confirm that all high-risk areas and tracks are pest-free | |
| **Check Areas** | All island tracks, Home Bay  Refer to [Map 3](#_ANNEX_30_MAP_3) and [Map 4](#Map4) | |
| **Timing** | First week every even numbered month  February, April, June, August, October, December  Open all tunnels on the same day  Close all tunnels on the same day | |
| **Resource** | 2 persons x 8 hours (open in conjunction with monthly surveillance)  2 persons x 4 hours (close tunnels)  1 person x 2 hours (check all collected cards, data entry) | |
| **Device** | **Location** | **Numbers** |
| Tracking Tunnel | All tracks, Home Bay | 155 |
| **Equipment list** | Notebook & pencil  Laminated [Track Map 1](#_ANNEX_28_MAP_1)  Laminated Map 2  Disposable gloves  Tracking tunnel lure | GPS (tracks & waypoints loaded)  Tracking tunnel cards  Tag pen  Camera  [DNA sample kit](http://www.ecogene.co.nz/sample_protocol.asp) |
| **Actions** | * Record everything done and seen * Label all cards as they are deployed * Place lure in the centre of card * Inspect all tunnels for evidence of pest animals * Clear tunnel entrances of vegetation and debris * Replace missing or damaged tunnels * Secure all retrieved cards for further investigation * When completed, transfer check data to hard copy register in office [template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (DOC-2832792) or see [Annex 33](#_ANNEX_33_RECORD_1) and update trapping effort database [DOC-2444666](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403293&dDocName=DOC-2444666) and the calculations completed at [DOC-2423421](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2403289&dDocName=DOC-2423421) * Act immediately on any evidence of pests, suspected or verifiable, and report it to your supervisor. Follow the process at [SECTION 3 – First Response to Incursion](#_3__First) | |
| **Recommended routes** | **1** Ring Road, Peninsula, Zig-zag, Jills, Te Pākeka, Paddocks  **2** Fuchsia, North Summit, South Summit, Southwood, Boat Bay, Fort Ridge, Fort Road, Home Bay, Buildings, Quarantine room, Wharf, Boat | |
| **Recommended tracking periods** | 5 nights October, December, February, April  7 nights June, August | |

#### 5 ANNUAL SURVEILLANCE CHECKS FOR INVASIVE ANTS

|  |  |  |
| --- | --- | --- |
| **Purpose** | Confirm that invasive ants have not reached or established on the island | |
| **Check Areas** | Home Bay  Refer to [Map 2](#_ANNEX_29_MAP) | |
| **Timing** | Once a year  January - March | |
| **Resource** | 1 person x 8 hours (plot set-up x 3)  1 person x 5 hours (run the plots) | |
| **Device** | **Location** | **Numbers** |
| Ant plot | Lower House  Comalco Lodge  Wharf | 3m x 3m plots x 3 |
| **Equipment List** | Notebook & pencil  Xstinguish non-toxic ant bait (325g)  Caulking gun  200 wire marker pegs  Tag pen  Camera | GPS (tracks & waypoints loaded)  Laminated [Map 2](#_ANNEX_29_MAP)  Disposable gloves  200 plastic tubes (with lids)  Pink flagging tape |
| **Actions** | * Follow the site plans and layout (for plot setup and location only) at [DOC-2590641](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2512933&dDocName=DOC-2590641) * Follow instructions in the [Argentine Ant Protocol](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-532450) (DOCDM-532450) * Record everything seen and done * Secure any evidence of pest sign or trapped animals for confirmation of species and further investigation * Write up results in report/memo format and submit to supervisor and Senior Ranger * Act immediately on any evidence of pests, suspected or verifiable, and report it to your supervisor. Follow the process at [SECTION 3 – First Response to Incursion](#_3__First) | |
| **Notes** | Ant surveillance requires warm dry weather at temperatures between 20°C and 25°C | |

### ANNEX 18 DO THIS FOR ALL FORMS OF INCURSION RESPONSE

|  |  |
| --- | --- |
| **When you have…** | * a reported sighting * possible evidence of a pest * a pest in a trap |
| **Do the following** | * Contact the Sounds Biodiversity Supervisor, Senior Ranger Biodiversity and Ops Manager Sounds immediately * Alert IEAG, Island Biosecurity Advisors and leaders of Recovery Groups for biota at risk ([Annex 21](#_ANNEX_21_)) * Inspect the site closely for (more) evidence * Record site details (notes, photos, videos, GPS) * Treat the site or locality as a crime scene (secure all possible evidence without contaminating DNA; collect all sign, prey and other evidence for later pathology and DNA analysis) * Interview reporters of sightings using the [Incursion Interview form](#_ANNEX_34_RECORD_1) ([Annex 43](#_ANNEX_34_RECORD_2)) * Complete a Pest Invasion form * Test your initial conclusions with advice from biosecurity colleagues, technical advisors, science advisors and other experts |
| **Then** | * Check all active sentry devices for the likely pest taxon in your surveillance network * Bait and set sleeping devices * Deploy additional tools * Request a pest-detection dog and handler from Karen Vincent ([kvincent@doc.govt.nz](mailto:kvincent@doc.govt.nz)) or Fin Buchanan ([fbuchanan@doc.govt.nz](mailto:fbuchanan@doc.govt.nz)) * Make a determination on the scale of response based on the likely pest and extent of spread * Submit Interview and invasion forms to Karen Vincent) and to Operations supervisors |
| **Then** | * Prepare for a CIMS approach to response management if the response is likely to be prolonged, complex or much larger in scale * Prepare a TAG to advise the CIMS team |

### ANNEX 19 Incursion response kit

The incursion response kit for Te Pākeka Maud Island is stored in the secure biosecurity cupboards of the island’s woolshed/workshop building.

Ensure that the kit is stocked with hardware and tools sufficient for *immediate* responses.

Stock this kit to serve responses on other pest-free islands in Pelorus Sound too.

Check the traps, baits and toxins in the kit **every six months** and refresh as necessary.

Clean and lubricate mechanical rodent traps with fisholene or vegetable oil. Focus particularly on the trip mechanisms to minimise trap failure.

As a minimum the incursion response kit will contain:

| **Resources** | **Located** |
| --- | --- |
| **Plans, maps, reference materials** |  |
| Te Pākeka Maud Island Biosecurity Plan (latest version) | Hard copy in island office |
| Sounds Islands Biosecurity Plan ([DOC-2575905](dme://doc-2575905/)) (latest version) | Hard copy in island office |
| Maps of Te Pākeka Maud tracks, buildings, locations of permanent pest surveillance net-works (trap, tunnels, chew-cards etc.) | Track and waypoint files are held on the island’s portable hard drive and the networked [S Drive](file://sndaosvr1/groups$/GIS/Biodiversity/115_Island_Management_and_Restoration/Maud%20Island)  Hard copy in island office |
| Maps of other Pelorus Islands: Takapourewa, Nukuwaiata, Te Kakaho, Whakaterepapanui, Kuru Pongi, Titi, Duffers, Bird Island, and Tennyson Islands (Tawhitinui, Tarakaipa, Awaiti) showing tracks, buildings, location of permanent surveillance networks. | [Annexes 28-30](#_ANNEX_28_MAP) in this plan  Hard copies in island office filing cabinet  Look also on the island’s portable hard-drive and networked [S Drive](file://sndaosvr1/groups$/GIS/Biodiversity/115_Island_Management_and_Restoration/Maud%20Island) |
| Reference books and useful internet links and supplier details | Island office, links appended to this document |
| Contact list for relevant experts (both pest eradication and threatened wildlife contacts) | [Annex 21](#_ANNEX_21__1) in this plan |
| **Marking, data and information** |  |
| Track and device waypoint .gpx files | Track and waypoint files are held on island portable hard-drive and networked [S Drive](file://sndaosvr1/groups$/GIS/Biodiversity/115_Island_Management_and_Restoration/Maud%20Island) |
| GPS with tracks and waypoints loaded and spare batteries (2 sets). | Island office |
| Digital camera, SD card, USB connector and spare batteries | Island office |
| VHF radio, charger and spare battery | Island office |
| Incursion logbook | Biosecurity cupboard in the island workshop |
| Datasheets and pencils/pens for trap and bait-station monitoring | Maud Biosecurity cupboard (workshop) |
| Waterproof notebooks and pencils | Maud Biosecurity cupboard (workshop) |
| Rolls of flagging tape (in two colours) | Maud Biosecurity cupboard (workshop) |
| Blue plastic marker triangles | Maud Biosecurity cupboard (workshop) |
| Allflex tag marker pens | Maud Biosecurity cupboard (workshop) |
| **Collection of samples and evidence** |  |
| 1 L 95% ethanol | DG store |
| Disposable rubber gloves (S, M, L sizes) | Maud Biosecurity cupboard (workshop) |
| [DNA sampling kits](http://www.ecogene.co.nz/sample_protocol.asp) | Maud Biosecurity cupboard (workshop) |
| Cleaning and disinfecting supplies | Maud Biosecurity cupboard (workshop) |
| Zip-lock plastic bags 20 each (S, M, L sizes) | Maud Biosecurity cupboard (workshop) |
| **Trapping and detection hardware** |  |
| Traps, nets and transport boxes for wildlife | Island office |
| 200 x Victor professional (wooden) mouse traps\* | Maud Biosecurity cupboard (workshop) |
| 200 x wooden mouse-trap boxes\* | Maud Biosecurity cupboard (workshop) |
| 20 x rodent poison bait stations Protecta/wooden (preferably wooden)\* | Maud Biosecurity cupboard (workshop) |
| 100 x plastic tracking-tunnel covers | Maud Biosecurity cupboard (workshop) |
| 200 x metal tracking-tunnel pegs | Maud Biosecurity cupboard (workshop) |
| 300 x Black Trakka cards | Maud Biosecurity cupboard (workshop) |
| 160 x DOC 150 traps (stainless steel) | Maud Biosecurity cupboard (workshop) |
| 20 x spare wooden multi-purpose tunnels for DOC 150 traps (single set) | Maud tractor shed |
| 200 x rat-trap covers (corflute)\* | Maud workshop |
| 200 x Victor Professional rat kill traps (to deploy in grid formation)\* | Maud Biosecurity cupboard (workshop) |
| 20 x DOC 200 traps in wooden boxes | Maud tractor shed |
| Leg-hold traps (Victor 1½ soft-catch for cats, Victor 1 or similar, and kill traps\* | Maud Biosecurity cupboard (workshop) |
| 4 x Havahart live-capture cage traps | Maud workshop |
| Wire pegs for trap covers and traps | Maud Biosecurity cupboard (workshop) |
| Pliers, hammer | Maud workshop |
| 8mm spanners | Maud workshop |
| Spade or mattock for leveling sites | Maud tool shed |
| Square-drive screwdrivers | Maud workshop |
| Hex screws, nails, staples, s/s square-drive screws | Maud workshop |
| **Lures** |  |
| 2 x 1kg jars of peanut butter | Maud Biosecurity cupboard (workshop) |
| 4 x 500g packs of white chocolate buttons | Maud Biosecurity cupboard (workshop) |
| 1kg rolled oats | Maud Biosecurity cupboard (workshop) |
| 500g Pestoff 20R non-toxic prefeed | Maud Biosecurity cupboard (workshop) |
| 4 sheets (144 blocks) of Erayz oven-dried rabbit meat | Island freezer (Lodge) |
| 8 dozen fresh hen eggs | To be purchased fresh |
| Plastic sealable containers for carrying lures and baits | Maud Biosecurity cupboard (workshop) |
| **Baits and toxins** |  |
| Toxin or toxic bait Pestoff 20R and/or Pestoff Rodent Block (at least 1kg, refreshed every two years) | Maud Biosecurity cupboard (workshop) |
| Safe Handling sheets ([DOCDM-22715](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-22715)) | Maud Biosecurity cupboard (workshop) |
| Templates for toxin signage and notices | Maud workshop |
| Sealable 2L plastic buckets with lids for bait disposal | Maud workshop |
| **Personal equipment** |  |
| PLB/EPIRB | Maud office |
| First-aid kit | Maud office |
| Day-pack and bum-bag | Lodge (storage on front deck), Maud workshop |
| Spotlights and head torches plus 1 spare set of batteries for each | Maud office |
| PPE | Maud workshop |
| Mobile phone and charger | Personal kit |

### ANNEX 20 Key documents for first responses

**Key Documents**

|  |  |
| --- | --- |
| Te Pākeka Maud Homepage | [DOCDM-1310868](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3122344&dDocName=DOCDM-1310868) |
| Island Biosecurity Homepage | [DOC-2512306](dme://DOCDM-2512306/) |
| SOP for Obtaining DOC permission to use rodenticides in island Incursions | [DOCCM-2751605](dme://DOCDM-2751605/) |
| CIMS Structure Template | [DOCDM-1121677](dme://DOCDM-1121677/) |
| Record sheet for incursion interviews | [Annex 34](#_ANNEX_34_RECORD) |
| Pest Invasion Form | [DOCDM-53216](dme://DOCDM-53216/)  Annex 35 |
| Island Pest Invasion Database | [DOCDM-53231](dme://DOCDM-53231/) |
| Template for Incursion Costs | [DOCCM-1560956](dme://DOCDM-1560956/) |
| Debrief template for incursion reports | [DOCCM-2619461](dme://DOCDM-2619461/) |
| DOC 200 Trap box design | [DOCDM-29855](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=714247&dDocName=DOCDM-29855) |
| Recovery Group Index | [DOCDM-377172](dme://DOCDM-377172/) |
| Ecogene DNA Sampling Protocol | [Website - Sampling Protocol](http://www.ecogene.co.nz/sample_protocol.asp) |
| Pest Detective (NPCA) | [Pest Detective Webpage](http://www.pestdetective.org.nz/) |
| Argentine Ant Protocol | [DOCDM-532450](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-532450) |
|  |  |

### ANNEX 21 Key incursion contacts

|  |  |
| --- | --- |
| Rangers Te Pākeka Maud Island  VPN 5131  Email [scaldwell@doc.govt.nz](mailto:scaldwell@doc.govt.nz)  [fhiggott@doc.govt.nz](mailto:fhiggott@doc.govt.nz)  DDI 03 576 5233  Mob 027 545 6518 | Susan Caldwell  Frank Higgott |
| Supervisor Biodiversity Islands (Sounds)  VPN 5170  Email [jjoseph@doc.govt.nz](mailto:jjoseph@doc.govt.nz)  DDI 03 520 3002  Mob | Johnny Joseph |
| Senior Ranger Biodiversity (Sounds)  VPN 5151  Email [pclerke@doc.govt.nz](mailto:pclerke@doc.govt.nz)  DDI 03 520 3036  Mob | Phil Clerke |
| Sounds Operations Manager  VPN 5172  Email [dhayes@doc.govt.nz](mailto:dhayes@doc.govt.nz)  DDI 03 520 3002  Mobile 027 2919143 | Dave Hayes |
| IEAG Lead  Technical Advisor Threats (Hamilton)  VPN 6076  Email [kbroome@doc.govt.nz](mailto:kbroome@doc.govt.nz)  Mobile 027 426 3497 | Keith Broome |
| Technical Advisor Threats (Nelson)  VPN 5059  Email [kbrown@doc.govt.nz](mailto:kbrown@doc.govt.nz)  DDI 03 546 3159  Mob | Kerry Brown |
| Co-ordinator, Pest Detection Dogs  Technical Advisor Threats (North Head)  VPN 7177  Email [fbuchanan@doc.govt.nz](mailto:fbuchanan@doc.govt.nz)  DDI 09 445 9247  Mobile 027 240 5069 | Fin Buchanan |
| CIMS  Biosecurity best practice  National Biosecurity Support (Rotorua)  VPN 6438  Email [pcorson@doc.govt.nz](mailto:pcorson@doc.govt.nz)  DDI 07 349 7438  Mobile 027 205 1811 | Pete Corson |
| Small mammal tracking and ID  Scientific Officer Threats (Hamilton)  VPN 6088  Email [cgillies@doc.govt.nz](mailto:cgillies@doc.govt.nz)  DDI 07 858 1588  Mobile 027-274-2210 | Craig Gillies |
| DOC Entomologist  Technical Advisor, Threats (Auckland)  VPN 7038  Email [cgreen@doc.govt.nz](mailto:cgreen@doc.govt.nz)  DDI 09 307 4838  Mobile 027 2364374 Pvt | Chris Green |
| National Advisor for Island Biosecurity  Technical Advisor Threats (Christchurch)  VPN 5418  Email [ekennedy@doc.govt.nz](mailto:ekennedy@doc.govt.nz)  DDI 03 371 3718  Mobile 027 839 5367 | Euan Kennedy |
| Pest animal pathology  Principal Scientist Threats (Christchurch)  VPN 5422  Email [emurphy@doc.govt.nz](mailto:emurphy@doc.govt.nz)  Mobile 027 491 8560 | Elaine Murphy |
| Incursion database  Co-ordinator, Conservation Dogs Programme  Technical Advisor Threats (Wellington)  Email [kvincent@doc.govt.nz](mailto:kvincent@doc.govt.nz)  DDI 027 201 3587  Mobile 027 201 3587 | Karen Vincent |
| Recovery Group leaders ? |  |

### ANNEX 22 Got a MOUSE ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited mouse-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the site and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Refresh all chew-cards in your surveillance network** | * Replace all 162 chew-cards * Label the new cards with their individual IDs * Inspect the old chew-cards for mouse sign | Ranger Te Pākeka Maud Island |
| **Set traps in all tunnels** | * Remove any tracking cards from the 155 permanent wooden tunnels * Fit each with baffles and a Victor mouse trap * Bait with fresh peanut butter or chocolate buttons | Ranger Te Pākeka Maud Island |
| **Re-lure and set all mouse traps** | * Replace the lure in all 46 permanent mouse traps with fresh peanut butter or chocolate buttons * Set all mouse traps in the 52 x DOC 200 boxes on island tracks and lure with fresh peanut butter or chocolate buttons | Ranger Te Pākeka Maud Island |
| **Re-bait all bait stations** | * Refresh the bait in each of the 6 permanent bait stations with 6 x Pestoff 20R pellets or 2 x Talon WP50 * Ensure that the bait is secured (i.e. tethered) in each bait station * Follow guidelines for handling and using bait at [DOCDM-22715](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-22715) (safe handling), the status list [DOCDM-22655](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2549187&dDocName=DOCDM-22655) (approved uses), and the Island Biosecurity Best Practice [DOCDM-20171](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=501668&dDocName=DOCDM-20171) * Ensure baits are protected from the elements in bait stations | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Complete the hard-copy register for devices [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790, or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2)), and tracking tunnels [template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (DOC-2832792, or see [[Annex 33](#_ANNEX_33_RECORD_1)](#Appendix3)) | Ranger Te Pākeka Maud Island |
| **Set additional devices** | **For mice detected in buildings …**   * Set multiple traps and/or bait stations in every room, and in accessible basement and ceiling spaces * Establish a grid of traps and/or bait stations at 25m spacings within 100m radius from the building * Set tracking tunnels alongside every second trap or bait station (i.e. at 50m spacings within the grid)   **For mice detected outside buildings …**   * Establish a grid of traps and/or bait stations at 25m spacings within 200m radius of the detection site * Set tracking tunnels alongside every second trap or bait station (i.e. at 50m spacings within the grid) * Use trail cameras at sites of likely activity if you are unsure of presence or behaviour * Extend the grid at least 100m in all directions from any new detection site | Ranger Te Pākeka Maud Island |
| **Marking and labelling** | * Label all devices and grid sites alpha-numerically relative to their position in the grid * Mark all sites with pink flagging tape * Record locations accurately with GPS and plot on an operation map * Set up recording sheets for the new grids and additional devices | Ranger Te Pākeka Maud Island |
| **Signage** | * Fix approved signage in place for your use of toxic bait in bait stations | Ranger Te Pākeka Maud Island |
| **Check devices at scheduled intervals** | **Until seven days have passed without sign of mice in any device …**   * Check each device daily for mice and mouse sign (tracked papers, chew marks, droppings, missing baits) * Replace all missing, chewed or mouldy baits, lures and chew-cards immediately * Refresh peanut butter lures every 1 - 3 days * Remove any bait or lure spilled outside devices * Replace cereal baits every seven days or more frequently if necessary. * Replace wax blocks when showing first signs of deterioration   **After seven days have passed without sign of mice in any device …**   * Replace all cereal baits and check bait stations, chew-cards and traps every seven days until 28 days have elapsed with no mouse sign (changing trap bait every 7 days). * Revert to daily checks if you detect mouse sign again, and continue daily until there has been no sign for 7 days | Ranger Te Pākeka Maud Island |
| **Collect all evidence from crime scenes** | * Place all chewed baits, chewed cards, droppings and any other potential evidence (prey, cached food, nesting material etc) in individual sterile plastic bags labelled with the date, collector’s name, site, trap line and bait-station number * Do NOT handle the evidence with bare fingers * Take high-resolution photos of the crime scene * Send the photos and evidence to your supervisor or Senior Ranger for confirmation * If in doubt, consult at least two experts * Use an Ecogene kit to collect any mouse caught or found, AND take body samples (ears, tails) for DNA analysis * Label animals and specimens correctly, freeze if not collected in sterile buffering solution, and arrange shipment through your Senior Ranger to a competent agency for pathology and DNA analysis |  |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response |  |
| **Disposal of bait** | * Secure all used baits, pellet dust and bait packaging in sealed plastic containers, store them in the biosecurity store on the island until they can be returned to DOC Havelock or DOC Sounds (Picton) District office for disposal at an approved facility |  |
| **Completion of your operation** | * Obtain approval from your CIMS team, Supervisors or Senior Rangers to discontinue the response when there has been no mouse sign detected by dogs or devices after 28 days (minimum) * Withdraw, clean, catalogue and store all additional devices * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all biosecurity networks become aware of results and lessons |  |

### ANNEX 23 Got a RAT ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited rat-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the site and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Refresh all chew-cards in your surveillance network** | * Replace all 162 chew-cards * Label the new cards with their individual IDs * Inspect the old chew-cards for rat sign | Ranger Te Pākeka Maud Island |
| **Refresh tracking cards in all tunnels** | * Install new Black Trakka cards in the 155 permanent wooden tracking tunnels * Bait each card with fresh peanut butter * Label each card with its tunnel ID | Ranger Te Pākeka Maud Island |
| **Re-lure all DOC 200 traps** | * Replace the lure in all 84 DOC 200 traps with a fresh hen egg and a smear of peanut butter on the nails * Use a protein bait such as Erayz if you suspect that you have a Norway rat ashore | Ranger Te Pākeka Maud Island |
| **Re-bait all bait stations** | * Refresh the bait in each of the 6 permanent bait stations with 6 x Pestoff 20R pellets or 2 x Talon WP50 * Ensure that the bait is secured (i.e. tethered) in each bait station * Follow guidelines for handling and using bait at [DOCDM-22715](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-22715) (safe handling), the status list [DOCDM-22655](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=2549187&dDocName=DOCDM-22655) (approved uses), and the Island Biosecurity Best Practice [DOCDM-20171](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=501668&dDocName=DOCDM-20171) * Ensure baits are protected from the elements in the bait stations | Ranger Te Pākeka Maud Island |
| **Shut down solo mouse traps accessible to rats** | * Check that all solo mouse traps on the island are set under covers with entrances too small to admit a rat (a sub-lethal encounter with a mouse trap will result in trap aversion) * Any other mouse trap must be set beyond a rat trap in boxes so that a rat must pass over the rat trap first to reach it | Ranger Te Pākeka Maud Island |
| **Set DOC 150 traps** | * Set DOC 150 traps in some or all 155 permanent wooden tunnels (used by default as tracking tunnels), fit mesh baffles to either end, internal baffle and ensure that entrances are 70mm wide (minimum) * Lure with hen’s egg and peanut butter | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Complete the hard-copy register for devices [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790, or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2)), and tracking tunnels [template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (DOC-2832792, or see [[Annex 33](#_ANNEX_33_RECORD_1)](#Appendix3)) | Ranger Te Pākeka Maud Island |
| **Set additional devices** | **Rats are likely to disperse soon from points of arrival, so …**   * Set 1 or 2 additional traps per hectare, concentrating on the known or likely incursion site and preferred habitat types (including dwellings) * Lay traps out at 75m spacings within a grid radiating 450m from detection site(s) * Extend the grid at least 450m in all directions from any new detection site * Use DOC 150, DOC 200 or Victor Professional rat traps * Do NOT use Victor Professional rat traps if you suspect a large rat (the likelihood of trap aversion in the event of escape is too great) * All traps must be installed under a cover in a way that directs the rat over the plate for a guaranteed, humane kill. * All Victor traps must be tethered inside the covers (using heavy-duty strips of rubber if possible) * Set Victor traps very fine. Place the peanut butter lure on the rear of the plate so that a rat has to advance well over the plate to reach it * Set tracking tunnels alongside every second trap (i.e. at 75m spacings within the grid) * Use trail cameras at sites of likely activity if you are unsure of presence or behaviour | Ranger Te Pākeka Maud Island |
| **Place toxic baits strategically** | * Consider the strategic tethering of hand-laid Pestoff Rodent Blocks in areas where the rat is known or expected to frequent * Comply with the conditions of the SOP for [Obtaining DOC Permission for Rodenticide Use in Island Incursions](dme://DOC-2751605/) | Ranger Te Pākeka Maud Island |
| **Marking and labelling** | * Label all devices and grid sites alpha-numerically relative to their position in the grid * Mark all sites with pink flagging tape * Record locations accurately with GPS and plot on an operation map * Set up recording sheets for the new grids and additional devices | Ranger Te Pākeka Maud Island |
| **Signage** | * Fix approved signage in place for your use of toxic bait in bait stations | Ranger Te Pākeka Maud Island |
| **Check devices at scheduled intervals** | **Until seven days have passed without sign of rats in any device …**   * Check each device daily for rats and rat sign (tracked papers, chew marks, droppings, missing baits) * Replace all missing, mouldy or chewed baits, lures and chew-cards immediately * Refresh peanut butter lures every 1 - 3 days * Remove any bait or lure spilled outside devices * Replace cereal baits every seven days or more frequently if necessary. * Replace wax blocks when showing first signs of deterioration   **After seven days have passed without sign of rats in any device …**   * Replace all cereal baits and check bait stations, chew-cards and traps every seven days until 28 days have elapsed with no rat sign (changing trap bait every 7 days). * Revert to daily checks if you detect rat sign again, and continue daily until there has been no sign for 7 days | Ranger Te Pākeka Maud Island |
| **Collect all evidence from crime scenes** | * Place all chewed baits, chewed cards, droppings and any other potential evidence (prey, cached food, nesting material etc) in individual sterile plastic bags labelled with the date, collector’s name, site, trap line and bait-station number * Do NOT handle the evidence with bare fingers * Take high-resolution photos of the crime scene * Send the photos and evidence to your supervisor or Senior Ranger for confirmation * If in doubt, consult at least two experts * Use an Ecogene kit to collect any rat caught or found, AND take body samples (ears, tails) for DNA analysis * Label animals and specimens correctly, freeze if not collected in sterile buffering solution, and arrange shipment through your Senior Ranger to a competent agency for pathology and DNA analysis | Ranger Te Pākeka Maud Island |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response | Ranger Te Pākeka Maud Island |
| **Disposal of bait** | * Secure all used baits, pellet dust and bait packaging in sealed plastic containers, store them in the biosecurity store on the island until they can be returned to DOC Havelock or DOC Sounds (Picton) District office for disposal at an approved facility | Ranger Te Pākeka Maud Island |
| **Completion of your operation** | * Obtain approval from your CIMS team, Supervisors or Senior Rangers to discontinue the response when there has been no rat sign detected by dogs or devices after 28 days (minimum) * Withdraw, clean, catalogue and store all additional devices * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all regional biosecurity networks become aware of results and lessons | Ranger Te Pākeka Maud Island |

### ANNEX 24 Got a WEASEL, STOAT OR FERRET ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited mustelid-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the site and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Refresh tracking cards in all tunnels** | * Install new Black Trakka cards in the 155 permanent wooden tracking tunnels * Bait each card with Erayz or rabbit meat * Label each card with its tunnel ID | Ranger Te Pākeka Maud Island |
| **Re-lure all DOC 200 traps** | * Replace the lure in all 84 DOC 200 traps with Erayz, rabbit meat or a fresh hen egg * Use rabbit meat in preference to hens’ eggs for stoats | Ranger Te Pākeka Maud Island |
| **Set DOC 150 traps** | * Set DOC 150 traps in some or all 155 permanent wooden tunnels (used by default as tracking tunnels), fit mesh baffles to either end, internal baffle and ensure that entrances are 70mm wide (minimum) * Lure with Erayz, rabbit meat or hen’s egg | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Complete the hard-copy register for devices [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790, or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2)), and tracking tunnels [template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (DOC-2832792, or see [[Annex 33](#_ANNEX_33_RECORD_1)](#Appendix3)) | Ranger Te Pākeka Maud Island |
| **Set additional devices** | **All three mustelid species are likely to disperse rapidly from points of arrival, so …**   * Lay DOC 150 and DOC 200 traps out at 100m spacings in lines on tracks, ridgelines, gullies, creek and water margins, and along accessible shorelines * extend the lines 500m in all directions (where feasible) from any new detection site * Concentrate on areas of high bird and other prey activity * DOC 200 traps are better for stoats and ferrets * All traps must be installed under a cover in a way that directs the mustelid over the plate for a guaranteed, humane kill. * Check beaches and sandy areas for footprints * Use trail cameras at sites of likely activity if you are unsure of presence or behaviour | Ranger Te Pākeka Maud Island |
| **Marking and labelling** | * Label all devices and grid sites alpha-numerically relative to their position in the grid * Mark all sites with pink flagging tape * Record locations accurately with GPS and plot on an operation map * Set up recording sheets for the new grids and additional devices | Ranger Te Pākeka Maud Island |
| **Check devices at scheduled intervals** | **Until seven days have passed without sign of mustelids in any device …**   * Check each device daily for mustelid sign (tracked papers, chew marks, scats, missing baits) * Replace all missing, mouldy or chewed lures immediately * Refresh all meat lures daily * Remove any bait or lure spilled outside devices * Replace tracked cards in tracking tunnels   **After seven days have passed without sign of mustelids in any device …**   * Replace all lures with longer-lasting Erayz and check tracking tunnels every seven days until 28 days have elapsed with no mustelid sign (changing trap bait every 7 days) * Revert to daily checks if you detect mustelid sign again, and continue daily until there has been no sign for 7 days | Ranger Te Pākeka Maud Island |
| **Collect all evidence from crime scenes** | * Place all chewed baits, scats and any other potential evidence (prey, cached food, nesting material etc) in individual sterile plastic bags labelled with the date, collector’s name, site, trap line and bait-station number * Do NOT handle the evidence with bare fingers * Take high-resolution photos of the crime scene * Send the photos and evidence to your supervisor or Senior Ranger for confirmation * If in doubt, consult at least two experts * Use an Ecogene kit to collect any mustelid caught or found, AND take body samples (ears, tails) for DNA analysis * Label animals and specimens correctly, freeze if not collected in sterile buffering solution, and arrange shipment through your Senior Ranger to a competent agency for pathology and DNA analysis | Ranger Te Pākeka Maud Island |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response | Ranger Te Pākeka Maud Island |
| **Completion of your operation** | * Obtain approval from your CIMS team, Supervisors or Senior Rangers to discontinue the response when there has been no mustelid sign detected by dogs or devices after 28 days (minimum) * Withdraw, clean, catalogue and store all additional devices * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all regional biosecurity networks become aware of results and lessons | Ranger Te Pākeka Maud Island |

### ANNEX 25 Got a CAT ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited cat-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the site and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Set live-capture traps** | * Set large live-capture cage traps and Victor 1½ soft-jaw traps in the area of the cat sighting or sign * Set traps along linear landscape features (forest edges, beach margins, tracks) and in isolated patches of cover * Cut tracks in dense cover if necessary and set traps along the route * Lure the traps with fresh rabbit, hare, possum, beef or (fresh, frozen salted) fish * Extend the area covered by traps if cat or sign are detected elsewhere | Ranger Te Pākeka Maud Island |
| **Set additional devices** | * Supplement the traps with trail cameras (checked regularly) to watch along tracks and other likely foraging routes * Deploy sand trays along likely routes and check daily for footprints * Use prey lures (e.g. freshly killed rock pigeons, or rats) above trail cameras and sand trays * Check for footprints on beaches or in mud on tracks | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Complete the hard-copy register for devices [Template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208824&dDocName=DOC-2832790) (DOC-2832790, or see [[Annex 32](#_ANNEX_32_RECORD)](#Appendix2)), and tracking tunnels [template](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792) (DOC-2832792, or see [[Annex 33](#_ANNEX_33_RECORD_1)](#Appendix3)) | Ranger Te Pākeka Maud Island |
| **Euthanasia** | * Kill captured animals humanely using a .22 rimfire rifle to administer a single shot to the head * Check immediately to be certain of death | Ranger Te Pākeka Maud Island |
| **Marking and labelling** | * Label all traps alpha-numerically relative to their position in the landscape * Mark all sites with pink flagging tape * Record locations accurately with GPS and plot on an operation map * Set up recording sheets for the new grids and additional devices | Ranger Te Pākeka Maud Island |
| **Check traps** | * Check all live-capture traps daily within 12 hours of sunrise (a welfare requirement) * Replace meat lures every day in warm conditions and at 2-3 day intervals in cooler conditions * Replace all missing, mouldy or chewed lures immediately * Remove any bait or lure spilled outside traps | Ranger Te Pākeka Maud Island |
| **Collect all evidence from crime scenes** | * Place all chewed lures, scats and any other potential evidence (prey, cached food, nesting material etc) in individual sterile plastic bags labelled with the date, collector’s name, site, trap line and bait-station number * Do NOT handle the evidence with bare fingers * Take high-resolution photos of the crime scene * Send the photos and evidence to your supervisor or Senior Ranger for confirmation * If in doubt, consult at least two experts * Use an Ecogene kit to take samples from prey, resting material or other potential sign for DNA analysis * Label animals correctly, freeze and arrange immediate shipment through your Senior Ranger to a competent agency for pathology and DNA analysis | Ranger Te Pākeka Maud Island |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response | Ranger Te Pākeka Maud Island |
| **If no captures but sign persists** | **After 28 days have passed without capturing a cat …**   * Set up trail cameras with lures in the area of sign or indication by dog * Look for evidence of prey everywhere during other work * Commission further checks by dogs * Refresh and check sand trays regularly * Consult experts for advice on alternative means of detection and capture | Ranger Te Pākeka Maud Island |
| **Completion of your operation** | * Obtain approval from your CIMS team, Supervisors or Senior Rangers to discontinue the response when there has been no cat sign detected by dogs or devices after six months (minimum) * Remain alert for cat sign for the following twelve months * Withdraw, clean, catalogue and store all additional devices * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all regional biosecurity networks become aware of results and lessons | Ranger Te Pākeka Maud Island |

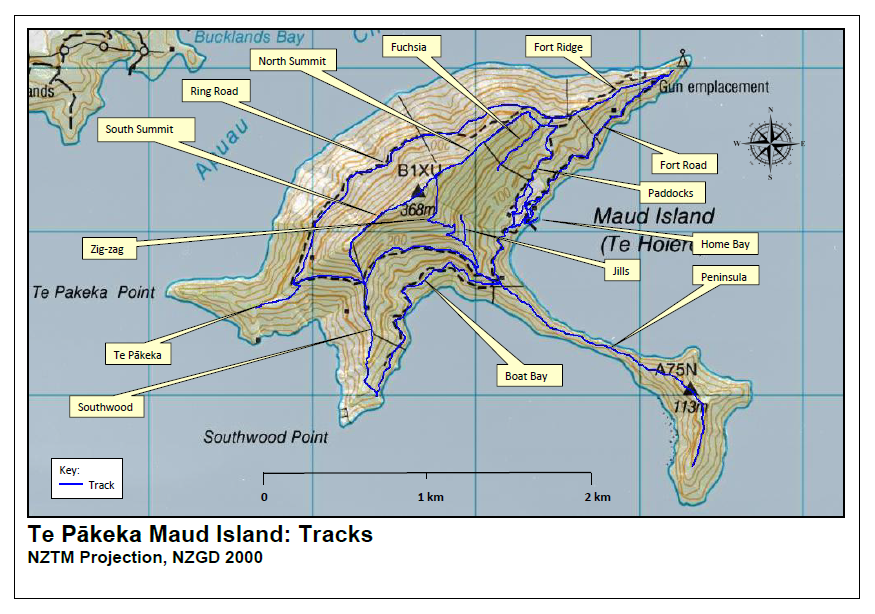
### ANNEX 26 Got INVASIVE ANTS ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited ant-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the sites and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Immediate baiting** | * Follow instructions in the [Argentine Ant Protocol](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dDocName=DOCDM-532450) (DOCDM-532450) to establish a grid of Xtinguish ant baits radiating 5m from detection site(s) * Refresh baits in this grid until expert advice is available to you * This is a strategy to limit natural migration from infestation sites | Ranger Te Pākeka Maud Island |
| **Shut down means of accidental distribution** | * Halt all traffic of vehicles and gear through and out of areas of infestation unless thoroughly treated with insecticides * Exclude infested dwellings from use until confirmed clear of invasive ants * Halt all traffic with other non-infected islands | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Log all actions, localities, baiting quantities and frequencies, and results | Ranger Te Pākeka Maud Island |
| **Collect evidence of infestations** | * Collect ant samples from bait stations and send them in sealed phials to Chris Green or Richard Toft for expert confirmation that you have invasive ants ashore and are not targeting native species erroneously * Label all samples clearly with date, your name, bait station number and island name | Ranger Te Pākeka Maud Island |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response | Ranger Te Pākeka Maud Island |
| **Completion of your operation** | * Ant operations in the wilderness are unlikely to conclude quickly * Prepare for long-term monitoring once known infestations are eradicated by taking expert advice on the most effective tools and extent of deployment * Withdraw, clean, catalogue and store all additional gear on completion of the response * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all regional biosecurity networks become aware of results and lessons | Ranger Te Pākeka Maud Island |

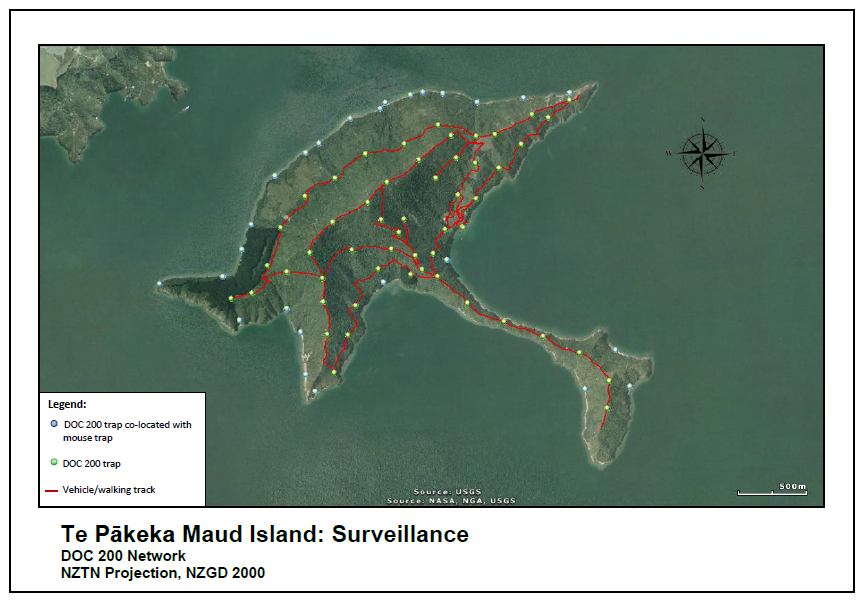
### ANNEX 27 Got PLAGUE SKINKS OR OTHER INVASIVE REPTILES ashore? Do this

| **Action** | **Measures** | **Responsible** |
| --- | --- | --- |
| **Request a pest-detection dog** | * Request an accredited reptile-detection dog and handler from Karen Vincent or Fin Buchanan * Use the dog for as long and frequently as needed to determine the sites and extent of invasion * Request additional dogs and handlers in the event of uncertain detection | Ranger Te Pākeka Maud Island |
| **Prepare to protect threatened and**  **non-target species** | * Follow the approved plan to protect threatened and non-target and threatened species from the effects of intensified detection and killing methods * Tell species recovery group leaders, your own managers and relevant associates well ahead of time that threatened species may require removal or salvage * Ask for advice if unsure | Ranger Te Pākeka Maud Island |
| **Consult the experts** | * There are no proven methods of controlling or eradicating plague skinks and similar invasive reptiles * Take advice from experts on limiting spread through the use of sticky pad and glueboard traps, lizard retreats, pitfall traps and fences | Ranger Te Pākeka Maud Island |
| **Shut down means of accidental distribution** | * Halt all traffic of vehicles and gear through and out of areas of infestation unless thoroughly inspected * Exclude infested dwellings from use until confirmed clear of reptiles * Halt all traffic with other non-infected islands | Ranger Te Pākeka Maud Island |
| **Record everything you do** | * Log all actions, localities, devices used and results | Ranger Te Pākeka Maud Island |
| **Collect evidence of infestations** | * Collect reptile samples, euthanase through freezing and send them in sealed containers to a herpetologist for expert confirmation that you have invasive reptiles ashore and are not targeting native species erroneously * Label all samples clearly with date, your name, bait station number and island name | Ranger Te Pākeka Maud Island |
| **Assess need for CIMS approach** | * Remain alert throughout to the need for escalation to a CIMS-based response | Ranger Te Pākeka Maud Island |
| **Completion of your operation** | * Invasive reptile operations in the wilderness are unlikely to conclude quickly * Prepare for long-term monitoring once known infestations are eradicated by taking expert advice on the most effective tools and extent of deployment * Withdraw, clean, catalogue and store all additional gear on completion of the response * Arrange a debrief and incursion report * Amend this plan to incorporate lessons learned * Make sure all regional biosecurity networks become aware of results and lessons | Ranger Te Pākeka Maud Island |

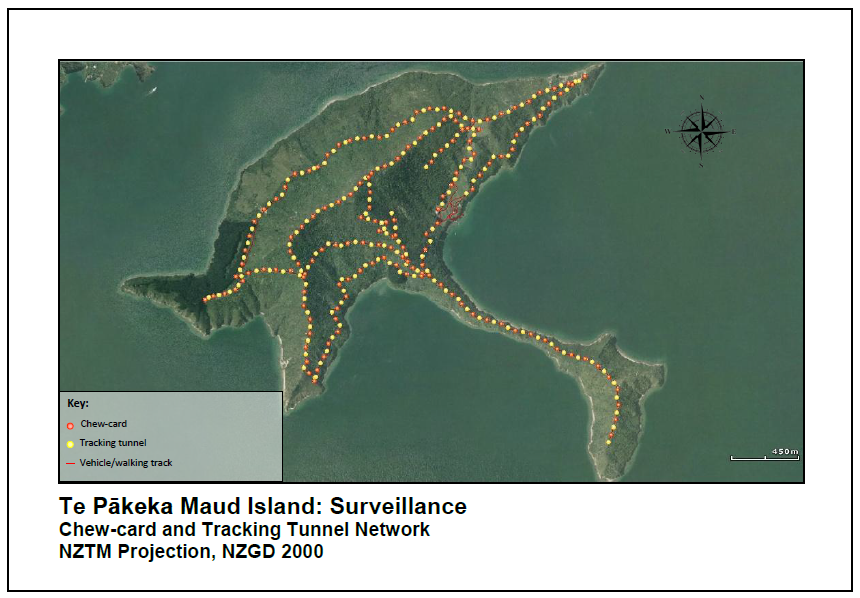
### ANNEX 28 MAP ONE—TRACK SYSTEMS on Te Pākeka Maud Island

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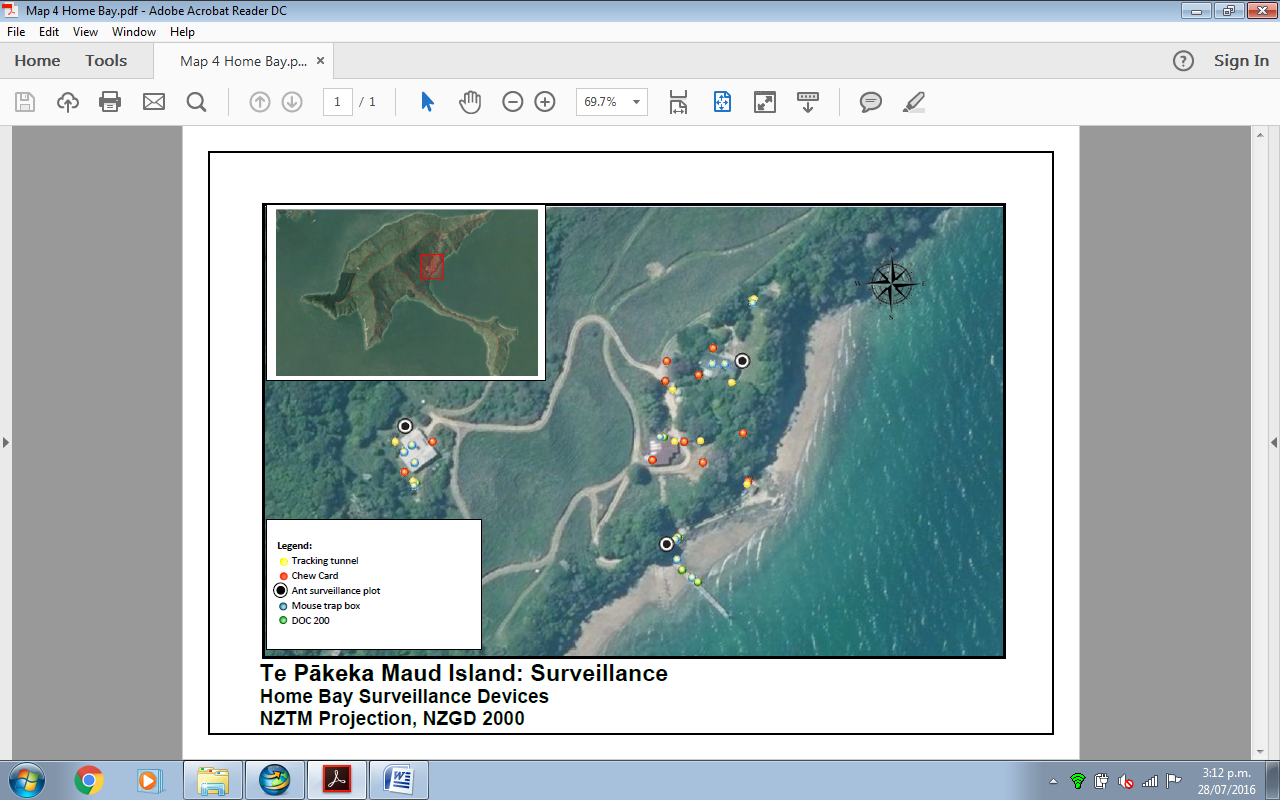
### ANNEX 29 MAP TWO—DOC 200 NETWORK on Te Pākeka Maud Island



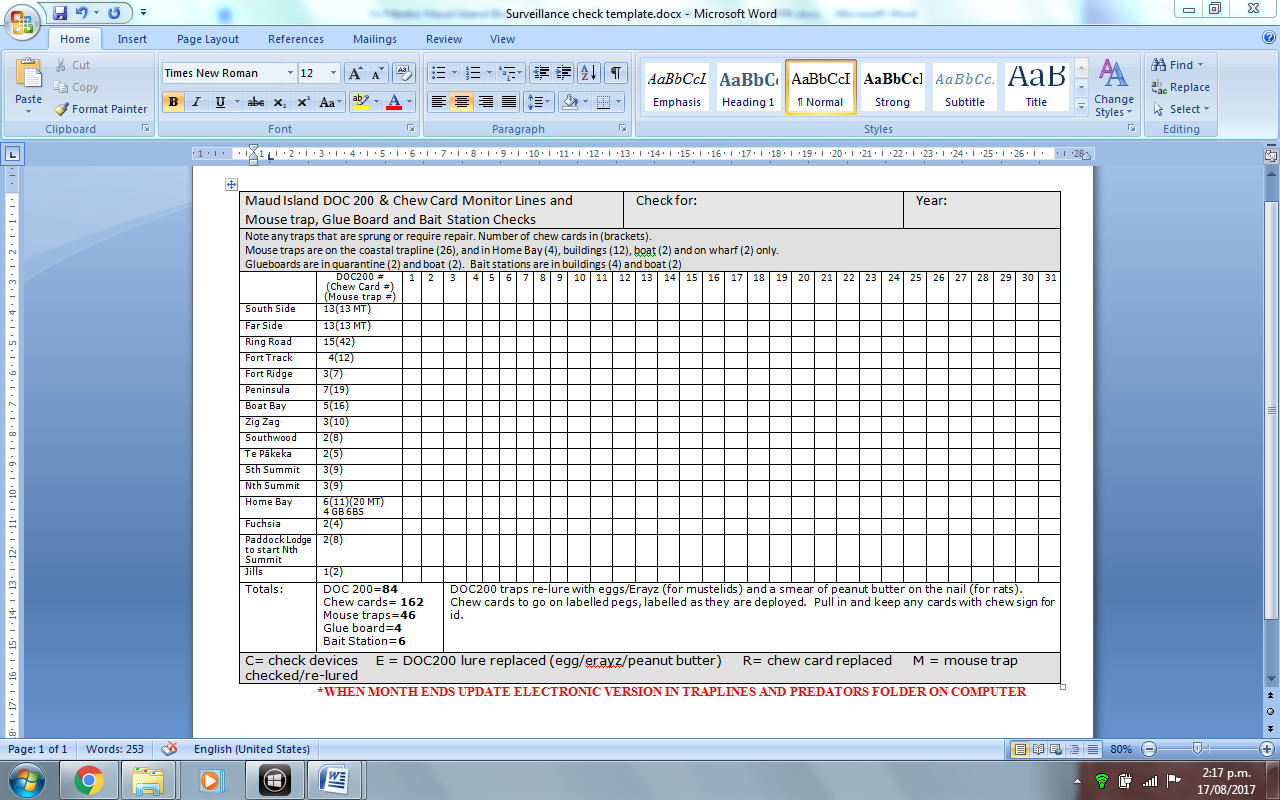
### ANNEX 30 MAP THREE—CHEW-CARD AND TRACKING TUNNEL NETWORKS on Te Pākeka Maud Island



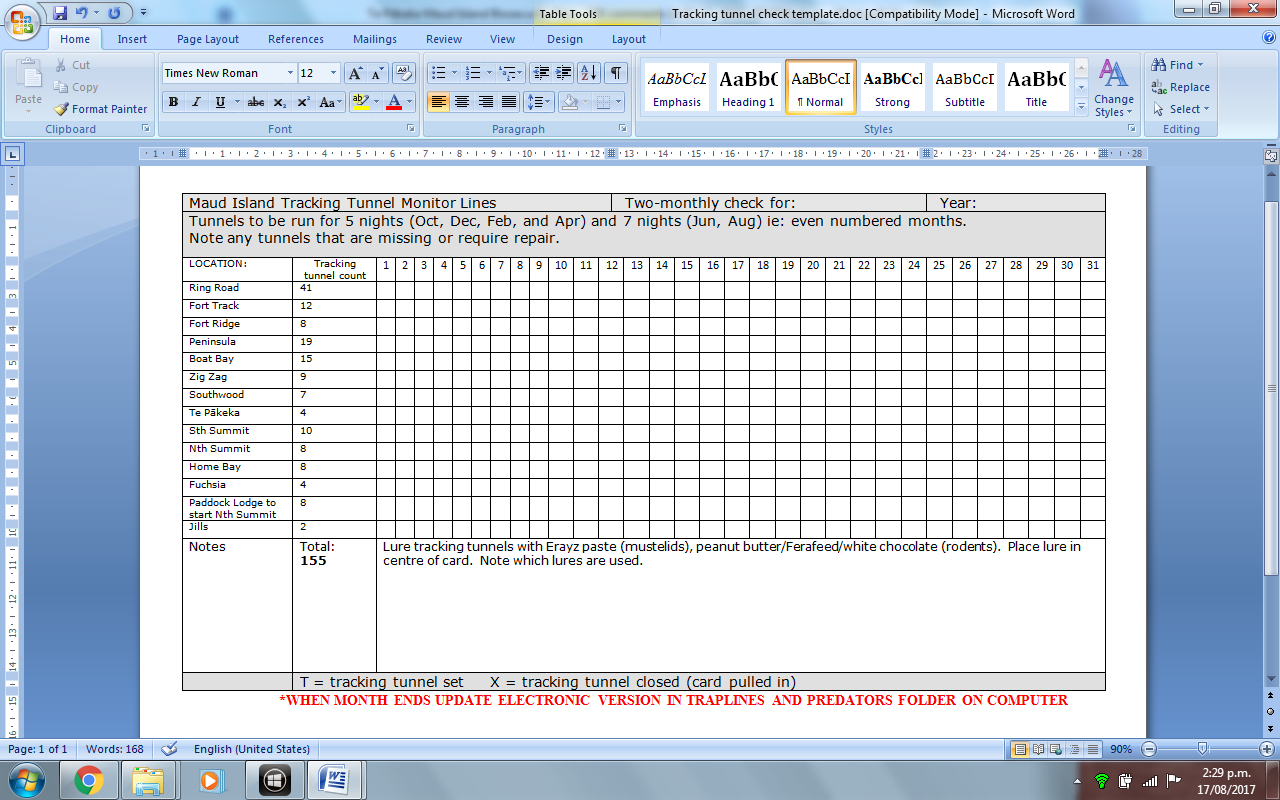
### ANNEX 31 MAP FOUR—SURVEILLANCE DEVICES IN HOME BAY on Te Pākeka Maud Island



### ANNEX 32 RECORD SHEET for SURVEILLANCE CHECKS on Te Pākeka Maud Island: [DOC-2832790](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=4121959&dDocName=DOC-2832790)



### ANNEX 33 RECORD SHEET for TRACKING TUNNEL CHECKS on Te Pākeka Maud Island: [DOC-2832792](https://doccm.doc.govt.nz/wcc/faces/wccdoc?dID=3208829&dDocName=DOC-2832792)



### ANNEX 34 RECORD SHEET for incursion interviews

|  |
| --- |
| Date, time and place of interview: |
|  |
| Interviewer’s name(s) |
| Contact Details: |
|  |
|  |
| Name of Interviewee: |
| Contact Details: |
|  |
|  |
|  |
| Can you describe what you saw, heard, smelled etc? |
|  |
|  |
|  |
|  |
|  |
| What were the key signs that suggested to you that it was a pest animal? |
|  |
|  |
|  |
|  |
| Have you seen this species before? What is your experience of this animal? |
|  |
|  |
| Were there other witnesses? |
| Contact Details: |
|  |
|  |
|  |
| Where did this occur? Grid refs exact location. Attach diagrams, maps, photographs |
|  |
|  |
|  |
| When did this happen? |
|  |
|  |
|  |
|  |
| Other comments |
|  |
|  |
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|  |

**Response launched / /**

**Notify** Supervisor, Senior Ranger, Operations Manager Sounds

Complete a Pest Invasion Form ([DOCDM-53216](dme://DOCDM-53216/); Annex 35) and send to [kvincent@doc.govt.nz](mailto:kvincent@doc.govt.nz)

### ANNEX 35 PEST INVASION FORM

Pest invasion incident form ([**DOCDM-53216**](dme://DOCDM-53216/))

**Pest data**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Pest species  - name, number & sex |  | | Date of sighting | |  | | | Time |  |
| Was a voucher specimen collected? | |  | What samples were collected? | | |  | | | |
| Was the specimen/sample labelled? | |  | Where were they sent? | | |  | | | |
| Who identified the specimen/sample? | | | Contact details | Address | | | Phone | | |
|  |  | |  | | |  | | |

**Island data**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of island group |  | | | | | | Island name | | | | |  | | |
| Size of island |  | | | | | | Distance from mainland | | | | |  | | |
| Location of sighting |  | | | | | | Pest status prior to incident | | | | |  | | |
| Grid reference  (Topo50/NZTM) | Sheet | Easting | | | Northing | Type of invasion event | | | | |  | | |
|  |  | | |  |
| Is the island occupied? | | |  | | | | If '’Yes’, full-time or part-time? | | | | |  | | |
|  | | |  | | | | By whom: | | DOC  Iwi  Researchers  Private  Other: | | | | | |
| Are any other islands nearby? | | |  | | | |
| * If ‘Yes’: * Name island(s); * what distance are they apart; * whether within swimming range of the pest. | | | |  |  |  | | --- | --- | --- | | Island name | Distance of strait | Within dispersal range of the pest? | |  |  |  | |  |  |  | |  |  |  | | | | | | | | | | | | |
| Tide at time of sighting | | |  | | | | Sea conditions at time of sighting | | | | | |  | |
| What occurred/was seen or found |  | | | | | | Possible pest entry mode | | |  | | | |
| Have there been incidents on the island within the last year?   * Check the Island Invasion Incidents database (docdm-53231) | | | |  | | | If ‘Yes’, what type: | Vessel grounding/shipwreck  Protected species behaviour changes  Predation  Incursion  Other: | | | | | |

**Personal data**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| DOC person who received the call | Name | | Work location | | | | VPN | E-mail |
|  | |  | | | |  |  |
| Person who discovered the pest | Name | | Address | | | | Phone | E-mail |
|  | |  | | | |  |  |
| First DOC staff member on the scene | Name | | Work location | | | | VPN | E-mail |
|  | |  | | | |  |  |
| Did the people or stores that the pest may have arrived with go through any quarantine checks? | |  | If ‘Yes’, what type: | | Bag check  Cleaning  Quarantine store  Repacking  Other: | | | | |
| Were any other management operations or activities occurring on the island at the time? | |  | If ‘Yes’, what type: | | Weed control  Research  Animal pest control  Tourism  Species management  Farming  Revegetation  Education  Other: | | | | |
| Picked up by routine surveillance? | |  | If ‘Yes’, what type: | | Gnaw sticks  Traps  Bait stations  Dog  Sentinel species  Sticky pads  Other: | | | | |
| Date and time of reporting | |  | |  | | Signed by recorder: | | | |

**Initial response planning**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Is confirmation of the sighting required? | | |  | | | | | |
| * If ‘Yes’ how much and what type is required? | | |  | | | | | |
| Does expert advice need to be sought? | | |  | | | | | |
| * If ‘Yes', who is/are being consulted and what is/are their expertise? * Consider seeking IEAG advice | | |  |  |  |  | | --- | --- | --- | --- | | Person | Expertise | Organisation | Phone | |  |  |  |  | |  |  |  |  | |  |  |  |  | | | | | | | | |
| How long may the pest have been present? |  | | |  | | | |
| Is the pest population reproducing? |  | | |  | | | |
| How much of the island is occupied? |  | | | | As a percentage of island area | |  | |
| How many of the pests are present |  | | | | |  | |
| What species or communities may be at risk from the pest? | | | | | | | | | |
|  | | | | | | | | | |

**Action**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Do nothing | |  | Report is considered a false alarm | | |
|  | Invasion will have minimal consequences | | |
|  | Nothing can be done to counter the invasion | | |
|  | Killed or removed at time of sighting | | |
|  | Confirmation needed | |  | Of the report | | |
|  | Identity of pest species | | |
|  | Reproductive status of pest species | | |
|  | Area occupied by pest | | |
|  | Age of individuals in the population | | |
|  | Impact on threatened species or communities | | |
|  | Control to be undertaken\* | |  | Eradication is not feasible: no suitable methods | | |
|  | Eradication is not feasible: island too large | | |
|  | Eradication is not feasible: not cost-effective | | |
|  | Eradication to be undertaken\* | |  | Targets, milestones, and reviews required in planning | | |
|  | \*Control or eradication  - prepare response plan identifying: | |  | Boundaries of treatment area | | |
|  | Treatment approach | | |
|  | Detail of methods: timing, repeats, monitoring, etc. | | |
|  | Threatened species rescue operation required | |  | Identify species: |  |
|  | | | | | | | | |
| Actions recommended/undertaken | | | | | | | | |
|  | | | | | | | | |
| Other references | |  | | | | | |

**Sign off**

|  |  |  |  |
| --- | --- | --- | --- |
| Ranger: |  | Date |  |
| Operations Manager: |  | Date |  |
| Send to | Karen Vincent ([kvincent@doc.govt.nz](mailto:kvincent@doc.govt.nz))  S&P, Wellington |  |  |

### ANNEX 36 SUPPLIERS of tools and lures

|  |  |  |
| --- | --- | --- |
| **Suppliers** | **Tools and lures** | **Contact** |
| Key Industries | Plastic ‘Snap-E’ mouse traps  Plastic ‘Trapper T-Rex’ rat traps  Plastic ‘Protecta’ bait stations | [Website](http://www.keyindustries.co.nz/) |
| Predator Traps | Information for the DOC series traps (including trap box dimensions, trap setting and maintenance information, and trap box and trap supplier details) | [Website](http://www.predatortraps.com/) |
| Pest Detective | Useful online tool for identifying footprints on tracking cards or on the ground | [Website](http://www.pestdetective.org.nz/) |
| Gotcha Traps | ‘Black Trakka’ polypropylene tracking tunnels (ones with overhang at tunnel entrance) and tracking tunnel cards.  Link to a PDF printable guide of animal tracks *What Made These Tracks* by Warren Agnew | [Website](http://www.gotchatraps.co.nz/html/about.html)  For orders: [sales@gotchatraps.co.nz](mailto:sales@gotchatraps.co.nz)  [Printable guide to identifying animal tracks](http://www.rotokare.org.nz/uploaded_images/Education/Identifying-animal-tracks.pdf) |
| Connovation | Erayz rabbit meat baits (paste or oven dried blocks for DOC 200s).  Ferafeed 216 (blue ‘smooth in a tube’ paste for mouse traps and tracking tunnels) and Ferafeed 213 (cereal based paste for filling chew-cards)  Corflute chew cards (either prefilled with Ferafeed 213 or empty) | [Website](http://www.connovation.co.nz/) |